

Awareness and Stress Response of the General Public towards the COVID-19 Pandemic: A Cross-Sectional Survey from Pakistan

Pakeeza Rubab¹, Sobia Ali², BibiHajira Ishaq², Shahid Raza³, Fearoz Khan⁴, Ayesha Ahmed Sumra⁵, Raqeeb Ullah⁶, Ali Raza⁷, Dr Khalid Hussain Rind⁸, Dr.HafizMahmood Azam⁹, Tahir Iqbal¹⁰, Wali Muhammad Achakzai¹¹, Shagufta Saddozai¹², Zahoor Ahmed².

¹Department of Biotechnology, University of Central Punjab, Lahore

²Department of Biochemistry, Khyber Medical College Peshawar, Pakistan.

³Department of ORIC, Lahore Garrison University, Lahore, Pakistan

⁴Assistant Professor Department of Biochemistry Rehman Medical College Peshawar.

⁵Department of Chemistry, The Women University Multan Pakistan.

⁶Department of Zoology, Abdul Wali Khan University Mardan, Pakistan.

⁷Assistant Professor, Government Degree College, Thehri, Khairpur, Pakistan.

⁸Assistant Professor, Department of Molecular Biology and Genetics, Shaheed Benazir Bhutto University Shaheed Benazirabad Pakistan.

⁹Associate Professor Mohammad Medical & Dental College Mirpurkhas Sindh.

¹⁰Department of Botany, University of Science & Technology Bannu, KP, Pakistan.

¹¹Associate Professor Department of Zoology University of Baluchistan Quetta 87300, Pakistan.

¹²Associate Professor Zoology Department SBK Women's University Quetta 87300, Pakistan.

Corresponding Author.

ShahidRaza

mianrs@yahoo.com

Abstract

The study gained insight into the awareness and mental wellbeing of the people, when the lockdown was imposed again in Pakistan due to the COVID-19 pandemic, by using a questionnaire for the survey. The survey was shared with 500 people and 414 responses were received from 20th to 25th May, 2020. Majority of the people were aware of what this pandemic was caused by and 71.2% people think that the lockdown has increased stress levels and 81.6 % agreed on the fact that there have been changes and unemployment has been suggested as a prevalent factor of stress by almost 90% of the subjects. Authorities in Pakistan should consider the mental health and wellbeing of the citizens and provide them with necessities and resources that will help them stay healthy mentally.

Introduction

SARS-CoV-2 is the causative agent of COVID-19, is positive sense, single stranded RNA virus and is enveloped, like others of its family i.e., coronaviridae (Wu et al., 2020). The symptoms exhibited by the patients are mainly fever, dry cough, fatigue, watery diarrhea and dyspnea (Paules, Marston, & Fauci, 2020).

Studies show that the novel SARS-CoV-2 is a chimeric virus produced by the coronaviruses of Bats and pangolins (Xiao et al., 2020). The order *Nidovirales*, have a characteristic strategy for the translation of their genome: Two polyproteins are the products of two-thirds of the viral RNA, and a nested set of sub-genomic mRNAs is transcribed by the rest of the viral genome. 16 non-structural proteins that make up the viral replicase–transcriptase complex, are encoded by the two polyproteins, pp1a and pp1ab. The polyproteins are cleaved by two proteases, PLpro and a main protease, 3CLpro (Drosten et al., 2003).

The proofreading capability required for the maintenance of a large RNA genome of coronaviruses is catered by the exoribonuclease (ExoN) function of nsp14. The four structural proteins i.e., spike (S), envelope (E), membrane (M) and nucleocapsid (N), as well as several accessory proteins, are expressed by the translation of sub-genomic RNAs. Although not involved in viral replication, accessory proteins, interfere with the innate immune response of the host or they are known to have functions that aren't properly understood yet (Ksiazek et al., 2003).

November 2002, is marked by the first known case of severe acute respiratory syndrome (SARS) occurred in Foshan, China (Peiris et al., 2003). In mainland China, new cases emerged and, more than 300 cases had been reported by February 2003, health care workers constituted around one-third of them. The spread to Hong Kong was the consequence of travelling of the infected individuals (WHO-2004).

In March 2003, a network of laboratories to determine the causative agent of SARS were established by WHO. Identification SARS coronavirus (SARS-CoV) in early April of that year, was due to an extraordinary effort of a global level. No more infections were detected by July 2003. The SARS pandemic was declared to be over after a total of 8,096 reported cases, including 774 deaths in 27 countries, in July 2003 (Wang et al., 2005).

Rather than medical interventions, measures of infection control ended the SARS pandemic. SARS could re-emerge, given that certain SARS-CoV-like viruses have recently been found in bats and are able to infect human cells without any preceding adaptation (Ge et al., 2013).

A man in Saudi Arabia died of acute pneumonia and renal failure in 2012, June. A novel coronavirus, was isolated from his sputum that was the Middle East respiratory syndrome coronavirus (MERS-CoV). In September 2012 three cases of MERS were identified in the UK (Menachery et al., 2015; Zaki, van Boheemen, Bestebroer, Osterhaus, & Fouchier, 2012).

The current, COVID-19 pandemic has proved to be problematic with regards to mental health, disturbed educational activities and closure of educational institutions, disturbance of plans different conferences and sports related activities. Depression and anxiety has been observed in people because of the situation that is prevalent (Araújo, de Lima, Cidade, Nobre, & Neto, 2020; Rajkumar, 2020). Many types of psychological problems like panic disorders, anxiety, and depression are generating along with virus causing life threatening physical health issues around the globe (Qiu et al., 2020).

During the lock-down mental health is a crucial aspect that needs to be addressed as all modes of communication revolve around the virus. This study has focused on observing the knowledge, awareness and attitude towards the COVID-19 pandemic, along with the change in routines and the effect on mental health in the sample population.

Methods

Participants

This survey was conducted from May 20th to 25, 2020 this was the week in which lock down was one again imposed in Pakistan. Online survey was conducted as social interaction was impossible due to the lockdown. The link of questionnaire was shared with almost 500 people and Total 414 people submitted their responses. This questionnaire was spread in almost peoples of every field and it basically focus on impacts of extension in lockdown on coping of public with the situation psychologically and how it has impacted their attitudes and the soundness of their mental wellbeing.

Questionnaire Design

This questionnaire consisted of two parts one was personal and demographic information and second was designed to get insight into their knowledge and perception of the situation and to understand the effect on the mental health of the sample population with regards to the pandemic and lockdown scenario.

Results and Discussion

Table 1. Demographic Information in Percentage of the Target Population

Demographic Variable	%age
Age Groups	
Below 20	15.9
20-40	82.6
40-60	1.5
Gender	
Females	62.8
Males	37.2
Employment Status	
Students	74.6
Employed	17.2
Unemployed	7
House wives	1.2

Table 2. Assessment of Awareness, Attitude and Mental Health of the general public

Questions	Option 1	Option 2	Option 3	Option 4	Option 5
Covid-19 is ----- infection?	Bacterial 9.3%	Viral 88.2%	Fungal 0.00	Allergic 2.5%	
How did you hear about this virus?	Media 65.7%	Social networks 24.4%	Government organizations 6.2%	Family/ Relatives 3.7%	Everywhere
Do you think increase in lock down days is increasing stress level?	Strongly agree 28%	Agree 43.2%	Not sure 15.9%	Disagree 9.9%	Strongly Disagree 3%
Do you think change in behavior is due to corona virus these days	Strongly agree 31.4%	Agree 50.2%	Not sure 11.8%	Disagree 6%	Strongly Disagree 0.6%
Is unemployment the biggest reason of people going into stress & depression these days?	Strongly agree 36.7%	Agree 53.2%	Not sure 8%	Disagree 0.9%	Strongly Disagree 0.15%
Do you think the increase in lack of resources due to lock down will force people to steal or kill for goods?	Yes 56.8%	No 12.1%	Maybe 31.2%		
Do you think keeping distance from family/ friends is a cause of depression?	Strongly agree 22%	Agree 43.6%	Not sure 13.8%	Disagree 18.2%	Strongly Disagree 2.4%
Do you think it is the end of the world?	Strongly agree 2.6%	Agree 7.9%	Not sure 35%	Disagree 29.5%	Strongly Disagree 25.4%

Do you think lockdown has increased the use of alcohol and tobacco	Strongly agree 7.5%	Agree 24.9%	Not sure 44%	Disagree 19.8%	Strongly Disagree 3.8%
Do you think people will completely forget about corona virus in future and become normal again?	Yes 30%	No 18.8%	Maybe 43.7%	Never 7.5%	
Do you think this free time will be more beneficial for people in future as they will have a free start?	Yes 49.5	No 30%	Maybe 20.5%		

In Table 2 we get to know that although 88.2% people have clarity regarding the fact that COVID-19 is a viral infection but a group of people is of the opinion that it is a bacterial infection or maybe it is an allergy. Most people got to know about the coronavirus pandemic by the media and the dissemination of the information of this pandemic by governmental institutions is very less and it poses a question mark on the policies and the priorities of the Government. In Pakistan, the Government should make plans to raise awareness about the COVID-19 pandemic and they should make sure that the public gets the information that is correct and verified so they can protect themselves and others better.

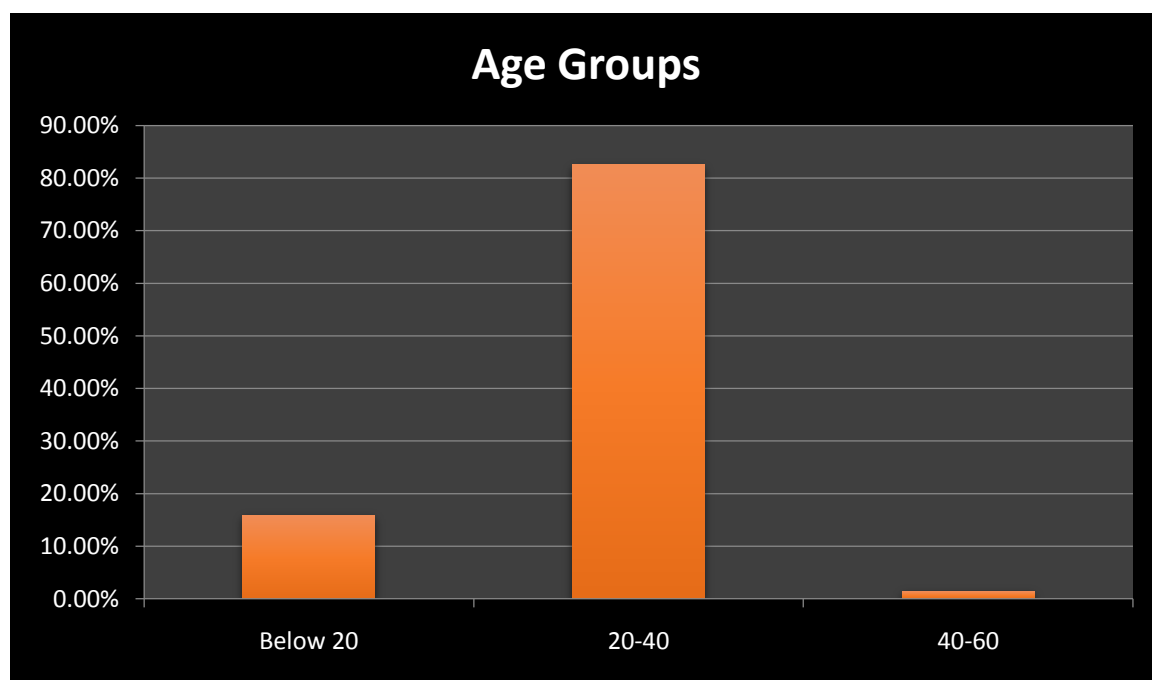
Almost 71.2% of the subjects think that the lockdown is increasing stress levels by affecting different aspects of an individual's life as 81.6% people agree that the behavioral change has also been a consequence of this pandemic and it has been shown in studies that public has shown changes in behavior with regards to selfishness in getting and hoarding personal protective equipment etc. and the negative behavior in the society is because of the fear and uncertainty of the situation which may also worsen to anger and people being intolerant and insensitive (Shigemura, Ursano, Morganstein, Kurosawa, & Benedek, 2020). A lot of videos have surfaced on the social media showing the people fighting each other to get supplies to survive the pandemic. Unemployment has also been suggested in Table 2 as a source of stress and depression, with approximately 90% of the subjects of the study agreeing on it, and this in turn will lead to people stealing and killing for basic necessities of life as mentioned above and almost 56.8% people hold the opinion.

About 65.6%, hold the opinion that not being able to meet family and friends may lead to depression and may affect mental well-being. The people who are quarantined aren't able to interact with others in the society which may lead to stress, loneliness and anger (Zandifar & Badrfam, 2020). Most of the people disagree about the fact that this is the end of the world. The world has faced pandemics and

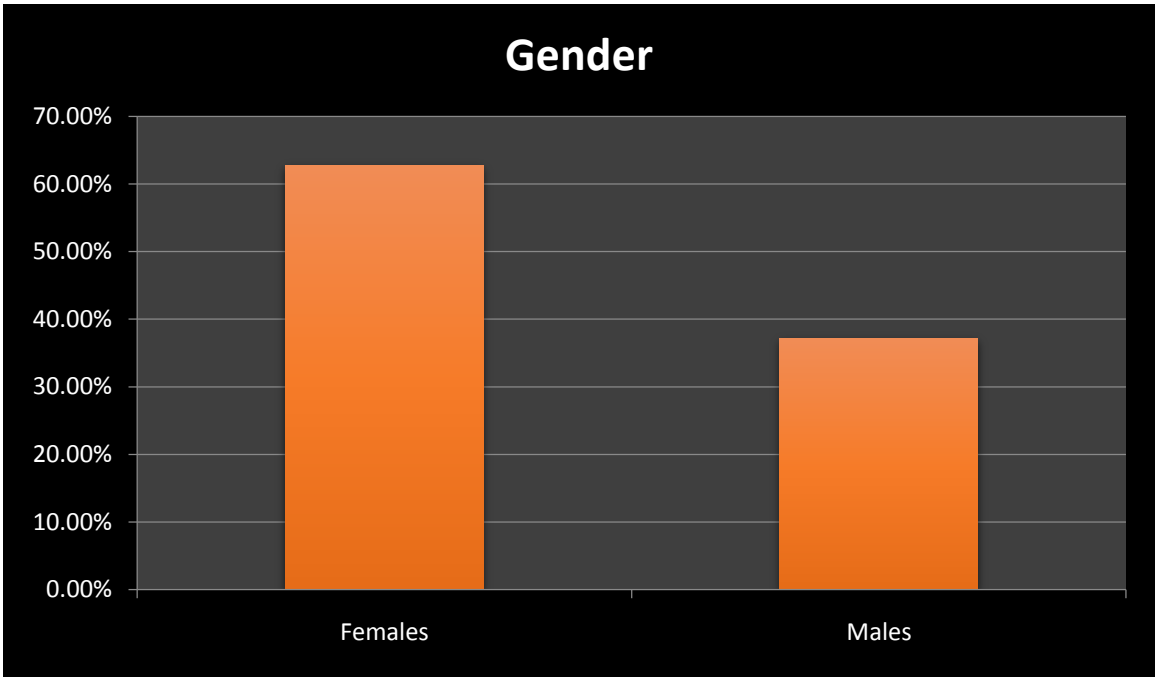
survived over the years and we can never be sure even from a scientific perspective regarding what's to come.

Majority are not sure that if the lockdown has increased the use of tobacco and alcohol usage, similarly there is uncertainty amongst the people regarding it the masses will forget about this novel corona virus pandemic. The pandemics of the past have also been forgotten and the world has moved on. The optimistic attitude towards the lockdown and the free time during it has been suggested by the last response that the majority hold the opinion that it will be a fresh start and one can learn new skills and they can focus on a lot of aspects of life that might help individuals excel in the future.

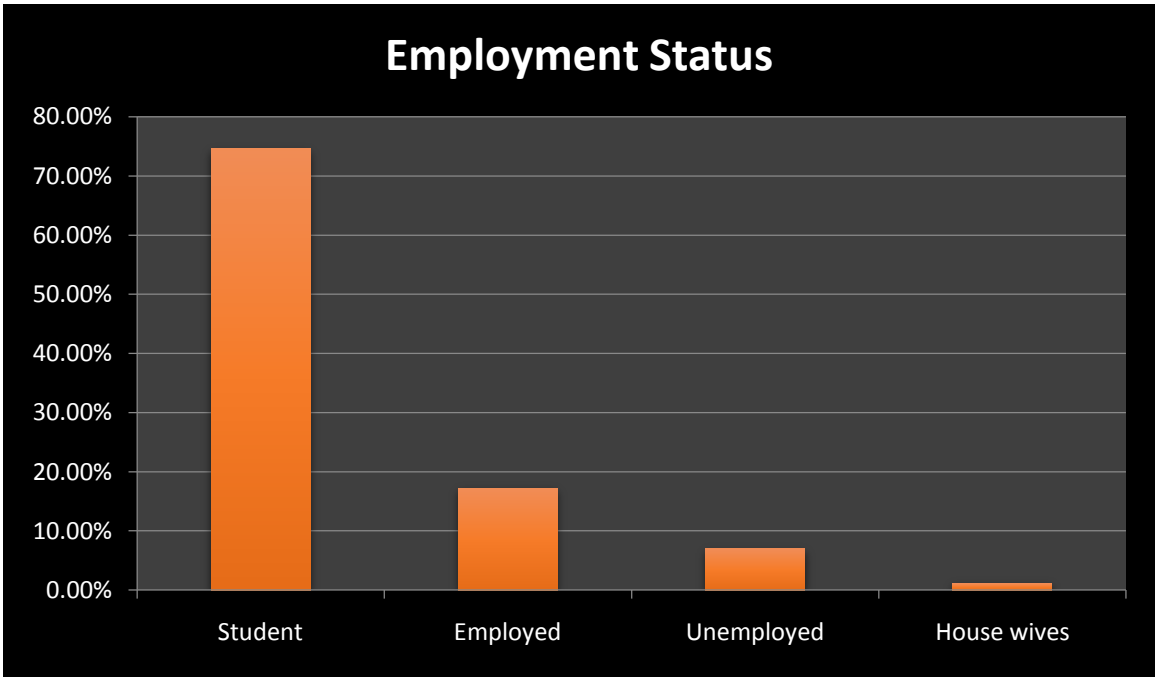
Demographic Information in Percentage of the Target Population



Graph 1: This graph shows the age group variation of the people 80% of the people are between the range of 20-40 and only 10% are below 20.

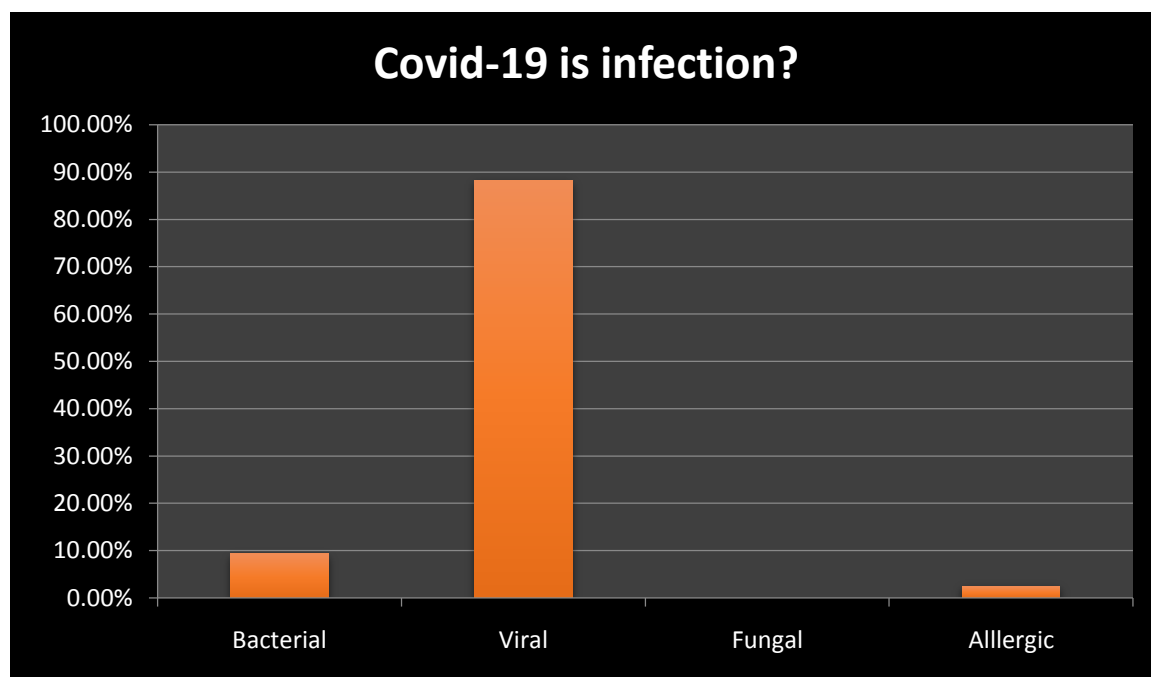


Graph 2: This graph shows the gender percentage 65% are Females and only 38% are male who filled this survey.

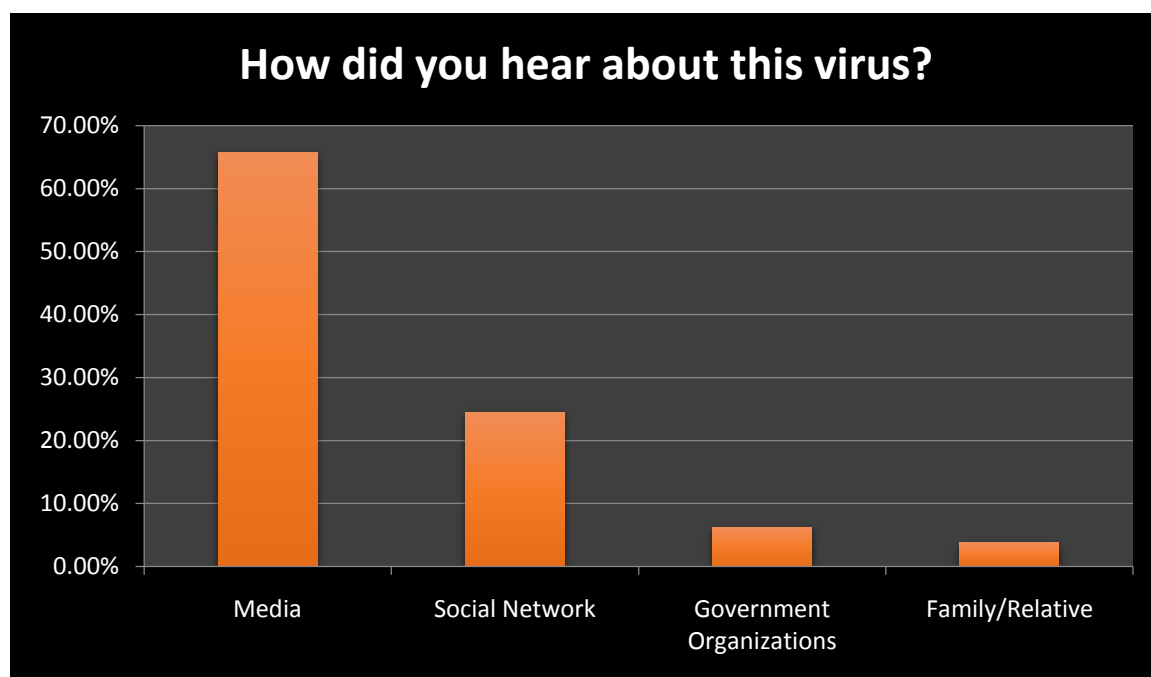


Graph 3: This graph shows that 74% are students 18% are employed, 7% are unemployed and only 3% are house wives.

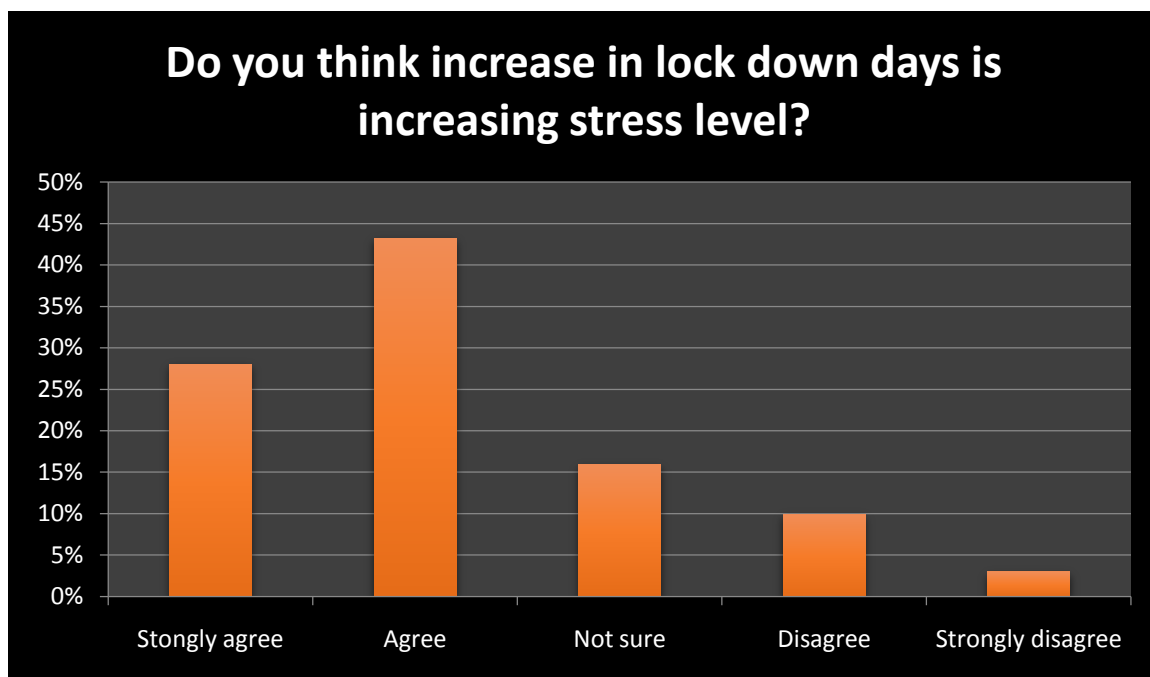
Assessment of Awareness, Attitude and Mental Health of the general public



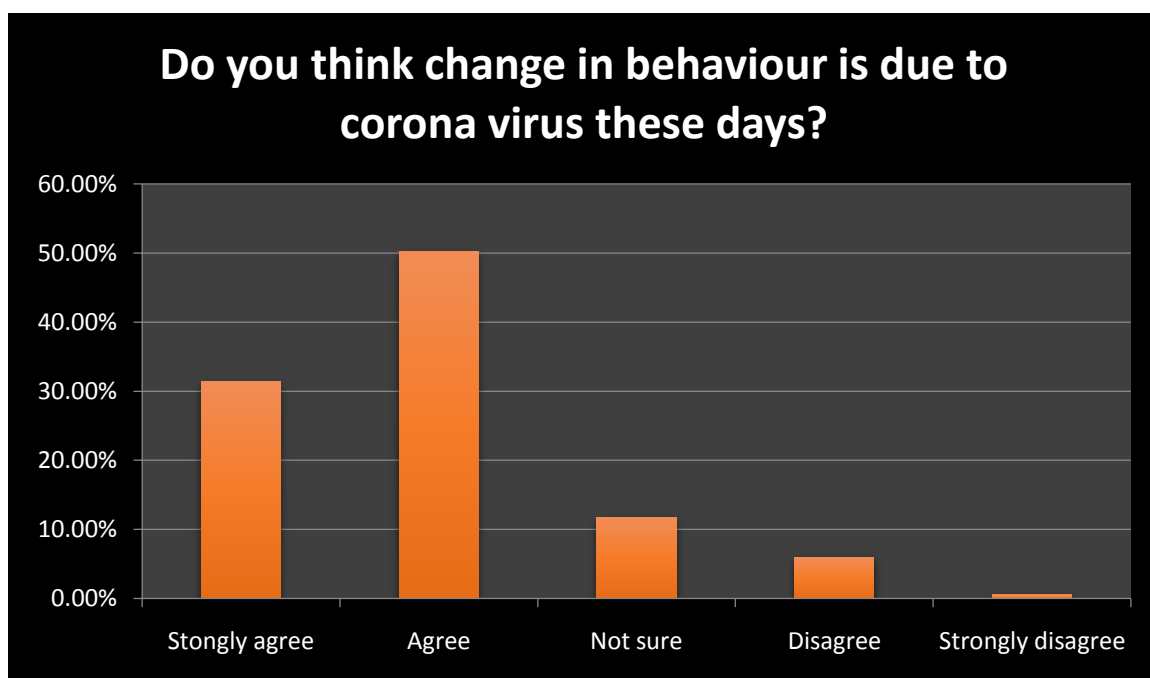
Graph 4: This graph is an awareness graph about Covid-19 infection. 9% people think that this infection is caused by Bacterial attack. 89% knows that it's a viral attack and 2% think that this is an allergic reaction.



Graph 5: This graph explains the percentage of different platforms from which people get to hear about this virus. People aware from media are above 60%, more than 20% hear about this virus from social network, by Govt. organization only 3-4% knows about this virus and 2-3% hear it from families.



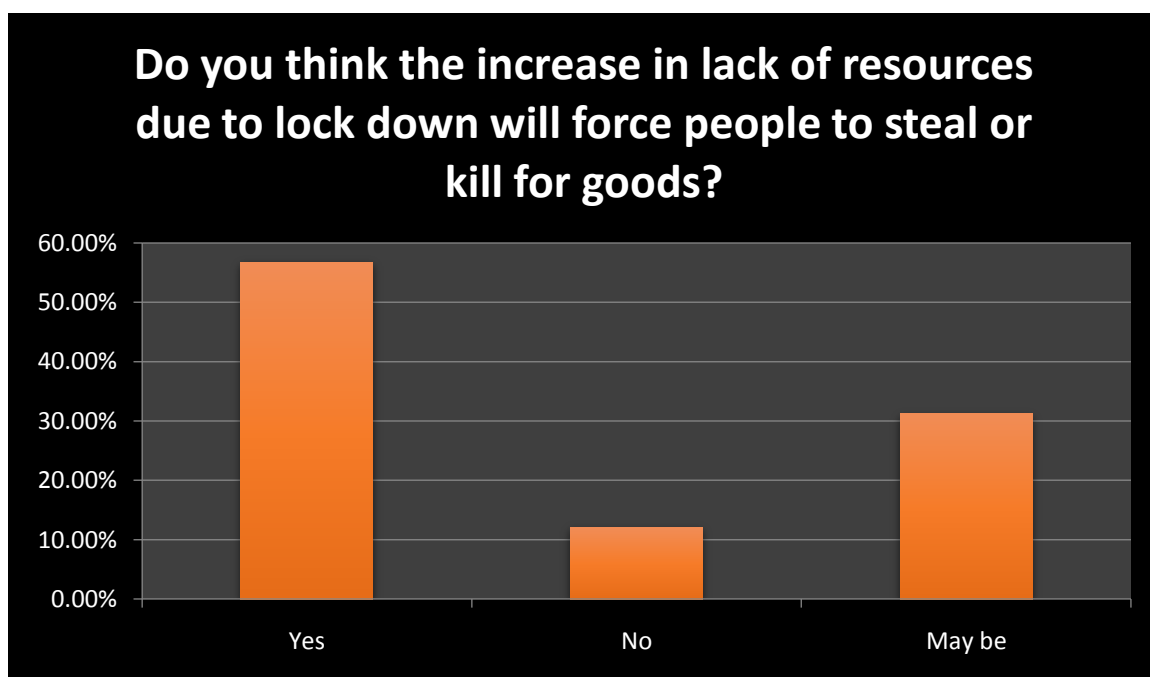
Graph 6: this graph is all about the increase in lock down and effect on increase of stress level.



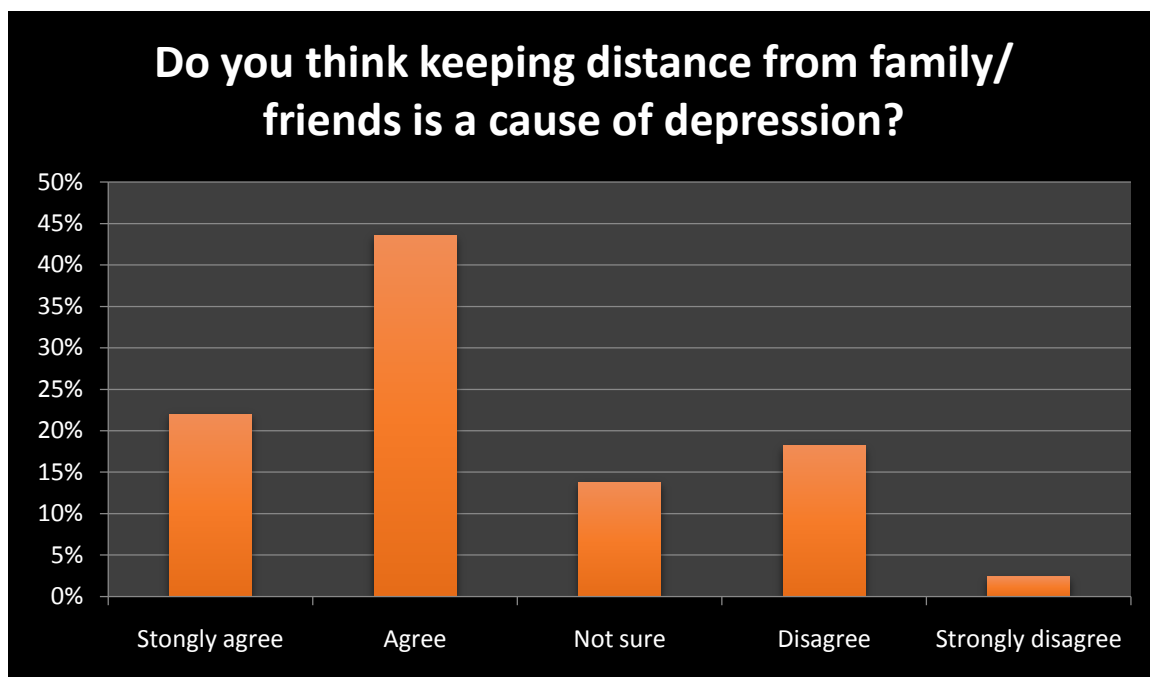
Graph 7: this graph is based on the behavior of people due to corona virus pandemic. Different reviews of people are shown in form of percentage.



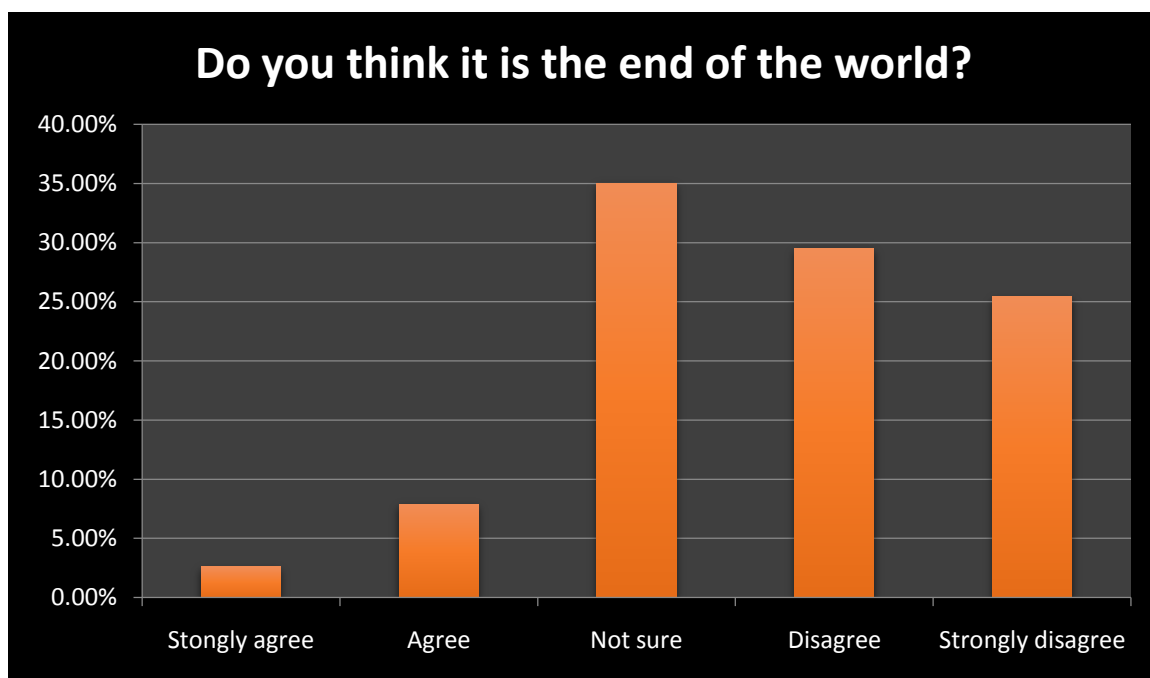
Graph 8: this graph is based on status of unemployment in the era of pandemic and %age of people's point of view.



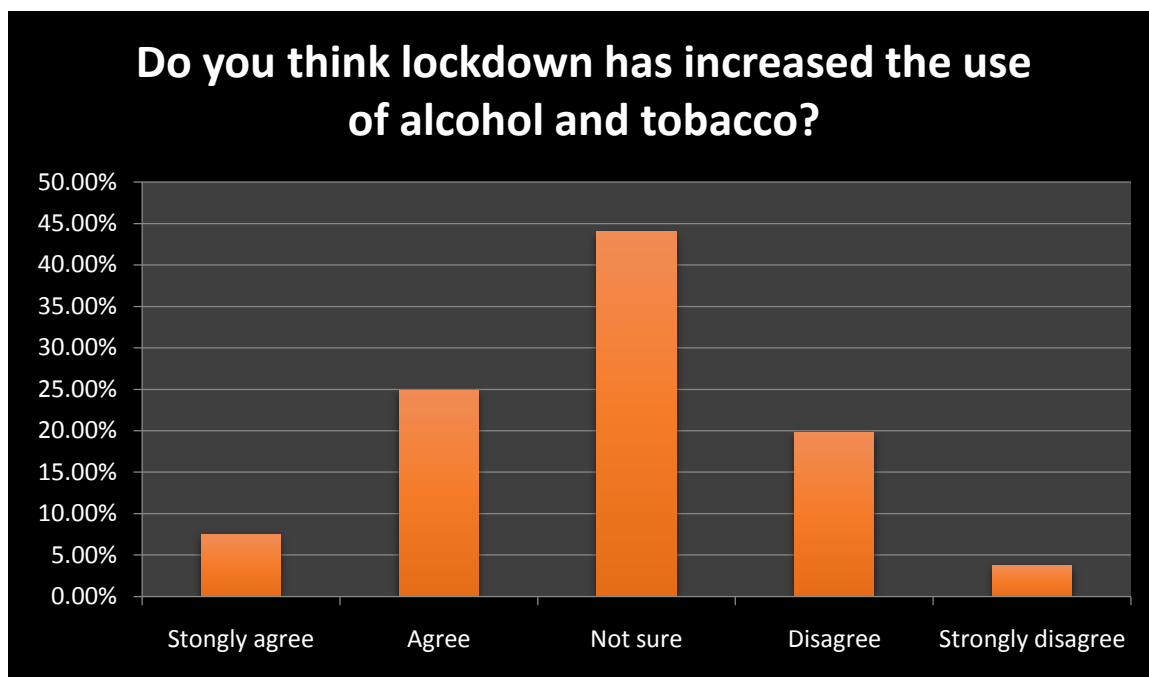
Graph 9: this graph is based on a need base question in case of Covid-19 pandemic. More than 50% People agree with the point that lack of resource force them to steal and more than 10% disagree but more than 30% are in confused state.



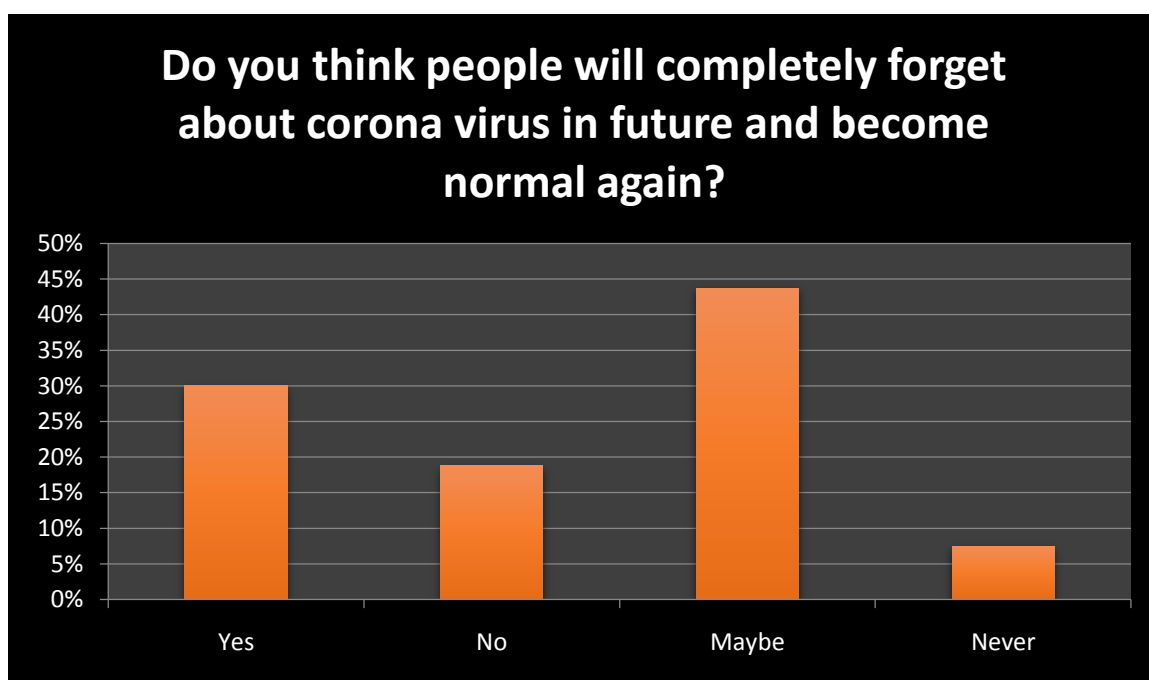
Graph 10: This graph shows the percentage of people who are depressed by lock down situation and the results are as follow more than 20% are strongly agree, more than 40% are agree. Almost 13% are not sure and 16-17% are disagree with the statement, only 2-3% are strongly disagree.



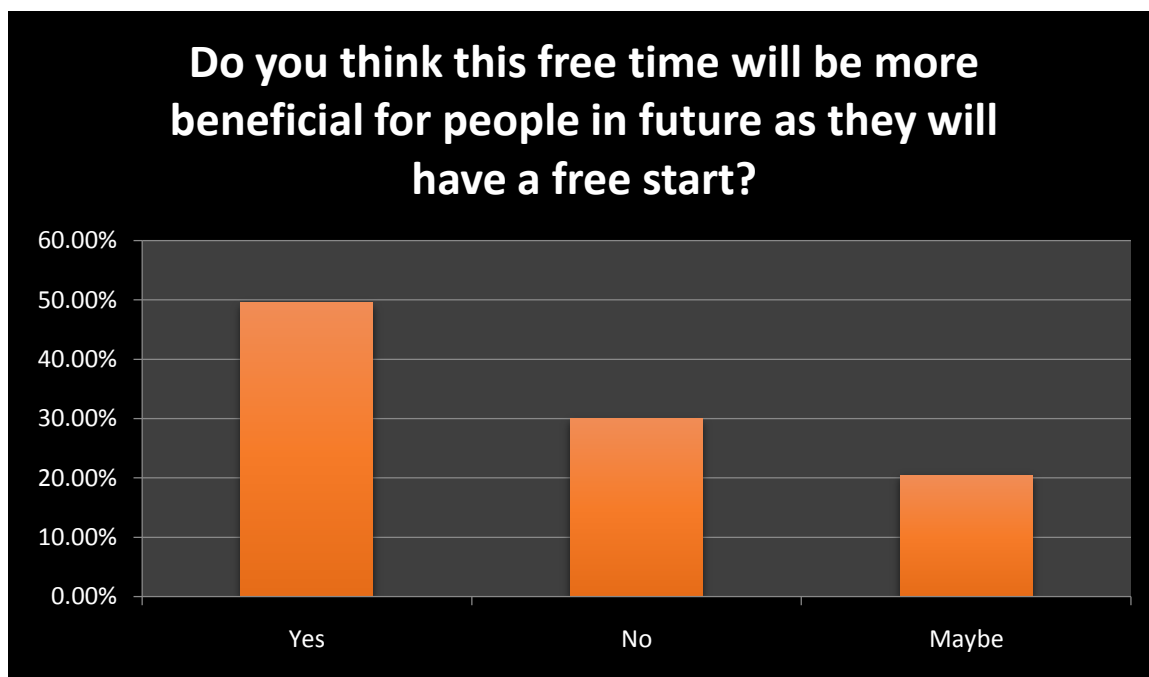
Graph 11: Covid-19 is causing a life threat so the people reaction on this was shown in graph. Different reviews of different people is shown in form of percentage.



Graph 12: This graph is based on the linkage between effect of lock down and increase in use of drugs. Different reviews are shown in form of percentage. Only 25-30% people agree with this statement other are not sure or disagree.



Graph 13: this graph is basically about the after effects of Covid-19 and the results are only 30% people think that the situation would be normalize in future, 45% are not sure and rest of the people have different opinions.



Graph 14: This graph shows the %age of people with different set of thoughts. Some of them have positive thought about the free time due to Covid-19 and rest of the people are not sure or have no opinion.

Conclusion

In conclusion, the survey suggests that most people are aware of the COVID-19 pandemic and they hold the opinion that this lockdown can increase negative attitudes as well as depression and stress related issues amongst the masses. To cater to these issues, the authorities should arrange sessions and online workshops, starts campaigns on the media with the focus of enhancing the mental wellbeing of the people.

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