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**KNOWLEDGE, AWARENESS AND ATTITUDE TOWARDS COVID-19
AND ITS IMPACT ON PUBLIC- A CROSS-SECTIONAL SURVEY**

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ABSTRACT

The pandemic of coronavirus is one that has become the talk of the world nowadays. It has impacted the public health and national emergency concern. Preventive measures such as lockdown have been imposed by the government nationwide. The lockdown period has brought with itself traumatic stress, confusion, anger, economic loss, changing of schedules, difficulty in sleeping and eating, etc. Nervousness, fear of contamination, panic attacks etc are some other ramifications. Some are using this period to use the lockdown constructively by spending time with family and friends, learning new skills, concentrating on self improvement, etc. A survey questionnaire of 15 questions was prepared on a survey platform and distributed among 100 people randomly, to analyse the perception of people towards the lockdown and pandemic. Statistical analysis was done using the SPSS software version 20.0. Descriptive statistics were expressed by means of frequency and percentage. Chi-square test were used to find the association between the variables. COVID- 19 has led to strict lockdown and avoidance of crowds by people.

Stocking up of groceries is the need of the hour and so is prevention and self protection against the virus. Financial crisis has been observed and is being tackled by the public. Lockdown has caused mental breakdowns, anxiety and depression due to burdening by work. New hobbies are an escape from stress. The present studies show the pandemic and outbreak of COVID-19 is affecting the mental and financial health of people.

Keywords: coronavirus; COVID-19; pandemic; public impact; mental health

INTRODUCTION

The pandemic of coronavirus is one that has become the talk of the world nowadays. It's rapid and fast spread has shocked everyone. The novel coronavirus disease that emerged at the end of 2019 began threatening the health and lives of millions of people after a few weeks [1]. Highly contagious with the possibility of causing severe respiratory infections, it has quickly impacted public health systems and governments, which have responded by declaring it as a public health emergency of national concern and by adopting measures such as a nationwide lockdown to limit the outbreak [2]. Millions of lives have been altered, a stress coping mechanism adjustment is demanded [3]. The outbreak has undoubtedly largely affected the mental, social, financial and physical health of people [4].

Coronavirus is a group of viruses that causes diseases in mammals and birds [5]. In humans, these viruses cause respiratory tract infection that can range from mild to severe. Mild illnesses can include some cases of common cold while lethal cases include

SARS & COVID-19 [6]. COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus- 2 (SARS-COV2) [7]. It was first identified in Wuhan, China and has since spread globally, resulting in a pandemic [8]. Common symptoms include fever, cough, fatigue, shortness of breath and loss of smell and taste [9]. It can also lead to multiple organ failures, septic shocks, and blood clots [10]. The virus primarily spread between people during close contact via small droplets produced by coughing, sneezing, and talking [11]. Recommended measures to prevent infection include frequent hand washing, maintaining physical distance from others, self quarantine, face covering and sanitising regularly [12, 13]. These preventive measures should be taken seriously as there are no vaccines nor specific treatments for infection [14].

Even though the preventive measures of self quarantine and lockdown that has been imposed by the government is highly helpful in controlling the spread of the virus, there

are many disadvantages [15]. The downside of self isolation or social lockdown are symptoms of traumatic stress, confusion, and anger, all of which are showcased by fear of infection, having limited access to supplies and essential items, inadequate information or the experience of economic loss or stigma [16, 17]. This stress can lead to increased alcohol consumption as well as increase in domestic violence and family violence [18]. This can cause changes in sleeping and eating patterns, difficulty in concentrating, and worsening of chronic health and mental health conditions [19]. In public health terms, the main psychological impact to date is elevated rates of stress and anxiety [20]. Quarantine has had its effects in many people's activities, routines or livelihoods - levels of loneliness, depression, drug abuse, self harm and suicidal behaviour have significantly risen [21].

Nervousness, fear of contamination, constant reassurance seeking behaviours, panic attacks, sleep disturbances, excessive worry and feeling of helplessness are some of the other ramifications [22]. Aggravating this is the probability of an economic slowdown, potential job losses, financial burden, and uncertainty about future possibilities [23]. While most are caught up in stress and the worries of life's others are using this time to

introspect and reflect about their priorities in life and its direction [24]. They are also using this time to be with themselves, concentrating on physical health, and their loved ones [25]. Others are using this time to learn new skills, learn a new language, read, draw, learn to play new instruments, write and eat healthy [26]. Lockdown has given people plenty of time to concentrate on self improvement and mend their relationships with loved ones [27].

MATERIALS AND METHODS

A cross sectional survey was conducted to analyse and evaluate the perception of the public towards the Covid 19 pandemic and lockdown. Self structured 15 questions were framed and the survey was made using an online survey portal and it was circulated among 100 people chosen at random, with the help of social media applications. The people were chosen from the general public, and were aged between 20 to 75 years old. Using the survey portal, the results were obtained and graphs were plotted to compare the results. Statistical analysis was done using the SPSS software version 20.0. Descriptive statistics were expressed by means of frequency and percentage. Chi-square test were used to find the association between the variables. The survey was prepared in such a way, to analyse the mental

health of people during the lockdown. They consisted of questions about coping with the difficulties of work from home, and online class, about stresses faced by the public and how they are spending their time during the lockdown.

RESULTS AND DISCUSSION

The survey results were obtained from the portal, and accordingly, pie charts were plotted for analysis and observation.

The pandemic of COVID-19 is a chase of worry for all. The fast spreading virus has changed the lifestyle of millions of people. The need of the hour is social distancing, which has been shown and practised by 96% of the people who have taken the survey (**Figure 1**) [28, 29]. People are also avoiding large crowds and gatherings which is a key feature in controlling the rapid outbreak i.e. 88% (**Figure 2**). Lockdown has brought all citizens to a still. The people (59% of them) are constantly stocking up on groceries and essential items, whereas 28% are still in the process of buying (**Figure 3**). The major problem which arises with constant stocking up, is the shortage and scarcity of essential items in the markets and grocery stores, which has been observed by 54% of the people (**Figure 4**) [30]. Shopping and buying/stocking up on the essentials can only be done by leaving the house, which is a

frequent part of people's routine (**Figure 5**). 41% of them left their house only once however, 28% of them left their house twice and 13% went outside thrice. The remaining did not leave their houses at all. However, stepping out, increases the risk of contracting the virus due to contact/inhalation/coming in contact with small droplets of infection [31]. One major prevention / sanitisation method suggested by the authorities is washing hands with soap and water. This kills all germs and lasts for 6 hours [32]. It should be practiced every 6 hours at home and every time one comes back after going outside. It helps in control of spread of infection [33]. 43% of the people are practicing this regularly, however 27% of them are not (**Figure 6**). The lockdown has brought upon itself a financial crisis, due to no office, which means employees will be working from home, this causes many technicality issues which results in low income in the businesses [34]. This leads to no funds from the government, no salary for the employees, a downfall in the nation's economic stats. Businessmen are sufferers and burdened by the responsibility of paying salary to their employees [35]. To relieve themselves of this responsibility, they have laid their work men in 46% of the cases (**Figure 7**). Self quarantine has also brought upon itself a

major trend of work from home. This is also practiced in school in the form of online classes where the students have the benefit of attending classes from the comfort of their homes [36]. However this comes with the disadvantage of dissimilarity of the quality of the quality of online classes as compared to personal / traditional classes (Figure 8) [37]. 40% of them think that the quality is not the same, 30% have the opposite views and the remaining 30% are in conflict. Because of the stress caused by online classes and work from home, along with the added pressures of contracting the virus and other household duties, necessary to be performed by all, many (64%) are finding the concept of work from home situation, as being difficult to deal with, the increased workload has added more mental pressure (Figure 9) [38]. The quarantine and lockdown has implied many restrictions on the public, the one being no outings and no social gatherings. Staying indoors may be liked by most people at first but soon becomes a burden and a factor of irritation[37,39]. This causes a disruption of schedule, leading to anxiety. No social gatherings, staying at home alone, become factors leading to depression (Figure 10) [40]. This is experienced by 53% of the people, whereas 47% do not feel like this. The burden of work is a factor of added

stress leading to many sleeping and eating difficulties (Figure 11). 35% of the people have experienced this, 45% of the haven't and the remaining 20% are not sure. The lockdown may have its set of disadvantages but many people are taking it as a part of life and embracing the free time they have on their hands [41, 42]. They have learned new skills and taken up new hobbies (Figure 12) which have led to improving their personalities [43]. 45% of them are acquiring new hobbies and learning new skills, whereas 27% are not. They are taking up new methods of entertaining themselves as well. They are improving their lives by catching up on their lost sleep and rest time (28%), spending quality time with family (38%), learning new skills like cooking (18%) and completing pending work (10%) (Figure 13). This has proved to be an escape from the stresses of COVID-19 and is simultaneously helping the control of spread of infection [41]. Most people (62%) find the government imposed lockdown to be useful (Figure 14). Each of them has a different assumption of the time it will take the country to get back to normal (Figure 15). 36% of them have predicted that it'll take 6 months, 34% have assumed it will take 1 year, 10% think it'll take 2 years and the remaining 20% do not think it can be determined as of now.

Nevertheless, the morale should be kept high, as everyone is together in surviving the lockdown and pandemic of COVID-19 [39, 44].

Figure 16 shows that 41% of people below 30 are facing stress due to the burden of online classes and the work from home situation, whereas 24% of people above 30 are struggling with the same. This may be due to not being able to cope with the added household work which needs to be done alongside professional work. This may also be because youngsters are not used to being isolated at home and doing everything on their own. **Figure 17** shows that 32% of people below 30 and 20% of people above 30 are undergoing depression and anxiety due to the stress of being in lockdown. Young adults are known to be outgoing and so, being isolated in their house without any communication with the world, adds stress to

their already stressful life, leading to anxiety and depression. It is evident in **Figure 18**, that 15% of people below 30 and 19% of people above 30 are facing eating and sleeping difficulties due to the worry caused by the pandemic. This is because with more age, immunity decreases, which is a key element in fighting the virus. This worry is caused by the fear of contracting the disease and not being able to overcome it. This is accounted for by the fact that older people have a higher ratio of being diagnosed with chronic illnesses in comparison to youngsters. **Figure 19** shows that 29% and 16% of people below and above 30 respectively are actively taking up new hobbies to spend their time efficiently. As stated in figure 20, they're mostly spending their time with their family, catching up on lost sleep and resting, learning new skills and completing pending work.

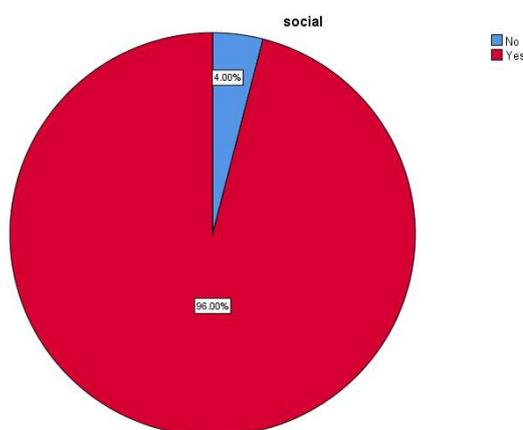


Figure 1. Pie chart represents the response of people when asked about social distancing. Majority of the respondents (96%) answered yes which indicated that social distancing plays an important role in controlling the COVID outbreak

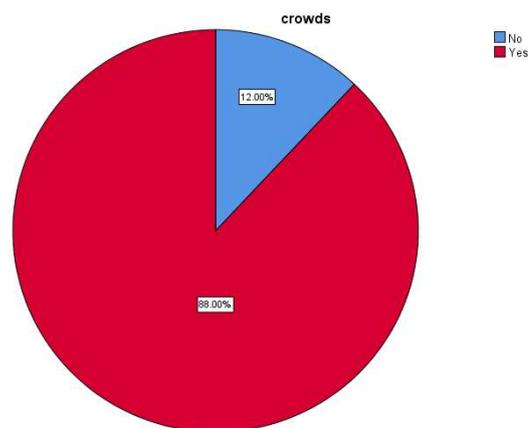


Figure 2. Pie chart represents the response of people when asked about avoiding social gatherings and crowds. Majority of the respondents (88%) answered yes which indicated that avoiding social gatherings and crowds plays an important role in controlling the COVID outbreak.

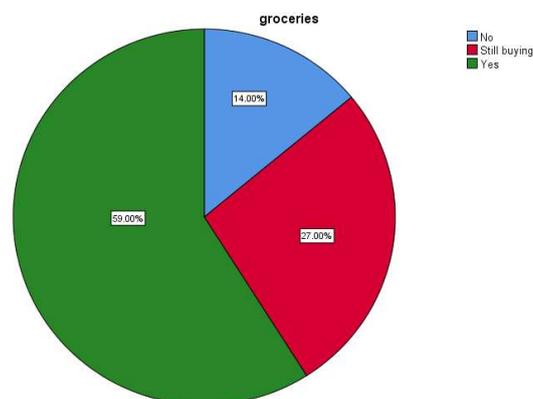


Figure 3. Pie chart represents the response of people when asked about stocking up on groceries and essential items. Majority of the respondents (59%) answered yes which indicated that stocking up on groceries and essential items is a popular activity in which people are involved during the lockdown.

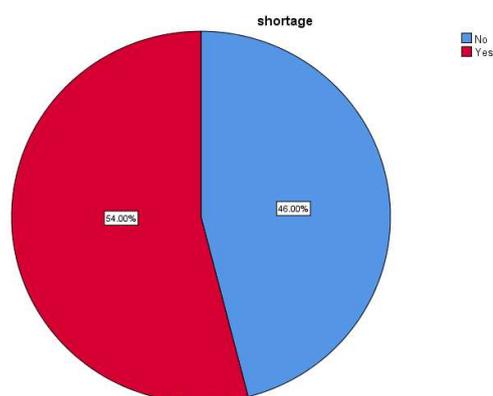


Figure 4. Pie chart represents the response of people when asked whether they faced any scarcity in essential items in markets. Majority of the respondents (54%) answered yes which indicated that groceries and essential items are being hoarded by people to avoid shortage at homes.

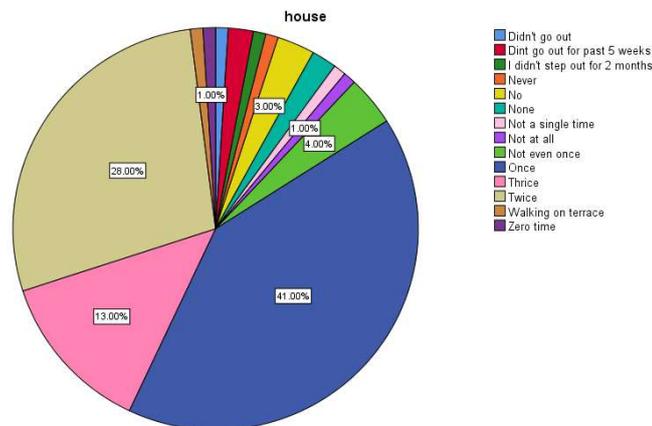


Figure 5. Pie chart represents the response of people when asked about the frequency of exiting their house. Majority of the respondents (41%) answered once which indicates that people are trying to avoid the risk of contracting the virus as much as possible.

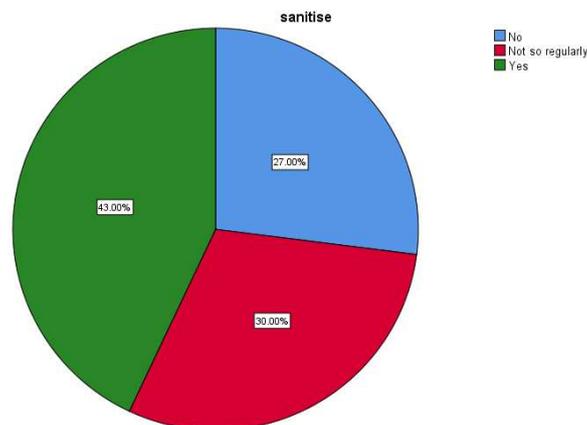


Figure 6. Pie chart represents the response of people when asked about the frequency of washing and sanitising their hands. Majority of the respondents (43%) answered yes which indicates that people are washing and sanitising their hands regularly.

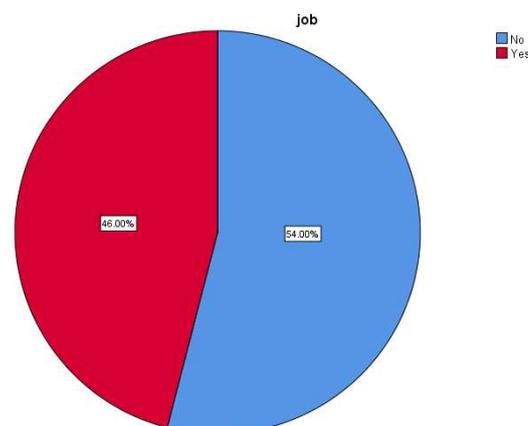


Figure 7. Pie chart represents the response of people when asked whether they have lost their jobs. Majority of the respondents (54%) answered no, which indicates that a significant number of people are losing their jobs due to financial constraints.

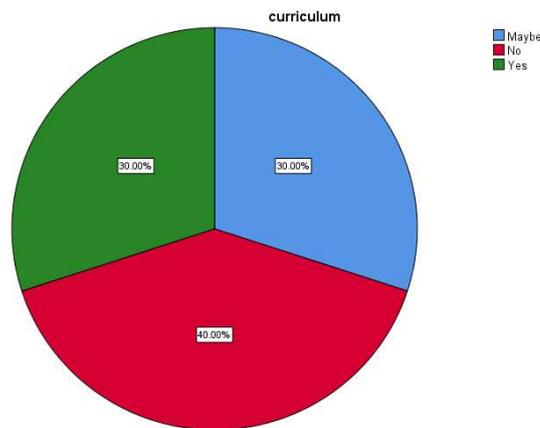


Figure 8. Pie chart represents the response of people when asked about the quality of education of online classes in comparison to traditional classes. Majority of the respondents (40%) answered no, which indicates that a significant number of people think that the quality of education is not the same.

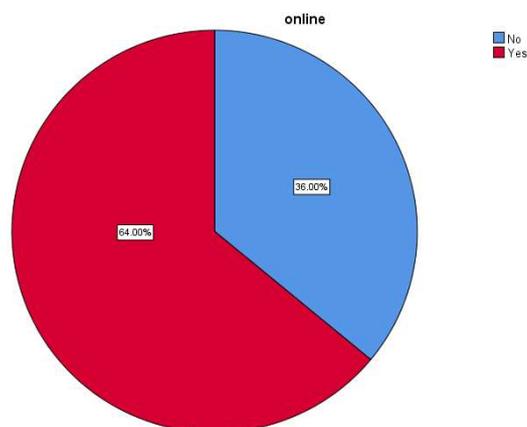


Figure 9. Pie chart represents the Majority of people when asked whether they find the online classes and work from home difficult to deal with. Majority of the respondents (64%) answered yes, which indicates that a significant number of people think that the situation of work from home is difficult to cope with.

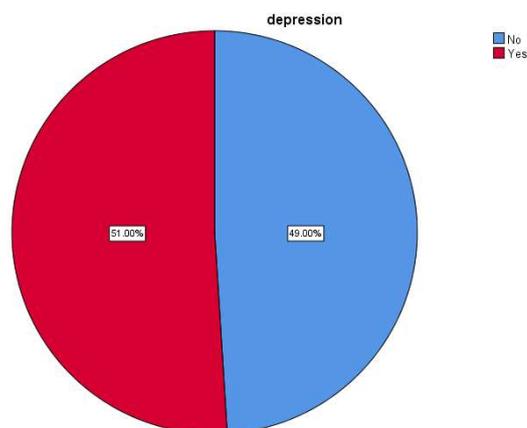


Figure 10. Pie chart represents the response of people when asked whether the lockdown is leading to depression and anxiety. Majority of the respondents (51%) answered yes, which indicates that a significant number of people think that the stress of the lockdown is leading to problems of depression and anxiety.

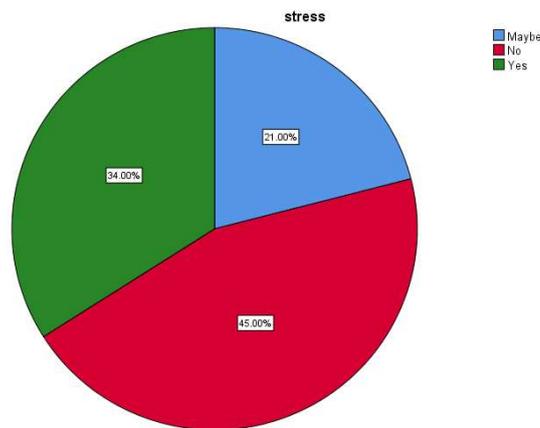


Figure 11. Pie chart represents the response of people when asked whether they are facing any eating or sleeping difficulties due to stress. Majority of the respondents (45%) answered no, which indicates that a significant number of people think that the stress of the pandemic is leading to problems with sleeping and eating.

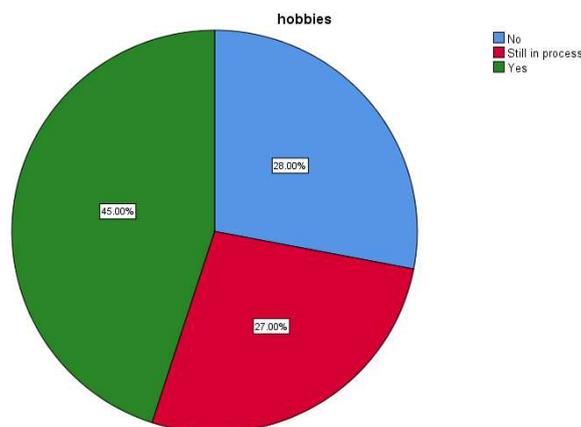


Figure 12. Pie chart represents the response of people when asked whether they are acquiring any new hobbies during the lockdown. Majority of the respondents (45%) answered yes, which indicates that a significant number of people are involved in taking up new skills and hobbies.

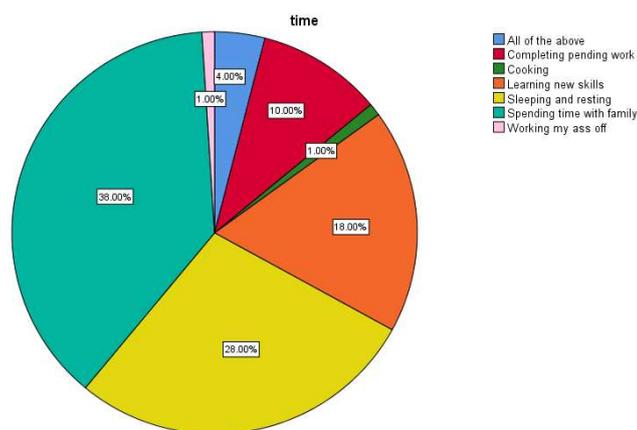


Figure 13. Pie chart represents the response of people when asked about activities that people are involved in during this lockdown period. Majority of the respondents (38%) answered spending time with their family, among the other activities such as completing pending work, learning new skills and resting.

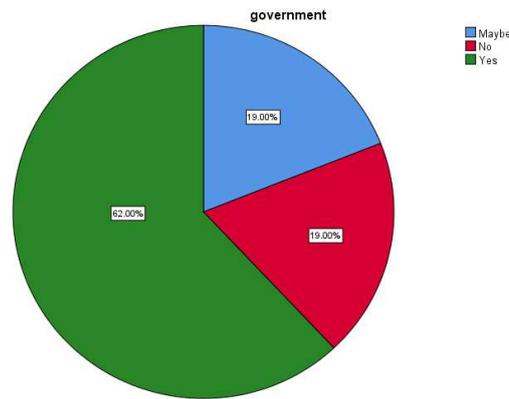


Figure 14. Pie chart represents the response of people when asked if they find the lockdown to be useful. Majority of the respondents (62%) answered yes, which indicates that they are abiding by the lockdown protocol imposed by the government.

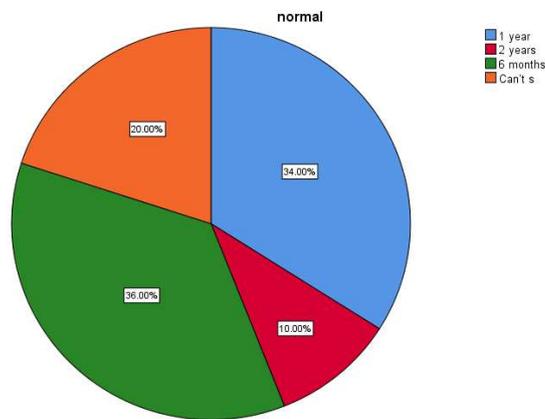


Figure 15. Pie chart represents the response of people when asked for their opinion on the amount of time it will take the country to get back to normal. Majority of the respondents (36%) answered 6 months, whereas, others have answered 1 year, 2 years, or can't say.

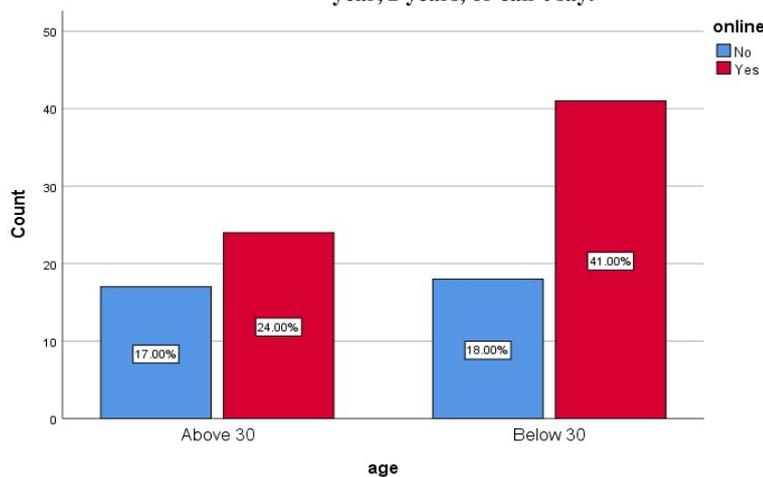


Figure 16. Bar chart representing association between age and stress faced due to the burden of online classes and work from home. X axis represents age of participants and Y axis represents stress faced by the participants. Out of 65% of the public who were stressed, 41% are below 30 years of age and 24% are above 30. Association between age and stress faced was done using Chi square test (chi square value = 1.276, P value = 0.259) and was found to be statistically insignificant. Eventhough the association is statistically insignificant, people below 30 are more stressed than people above 30 due to work from home and online classes.

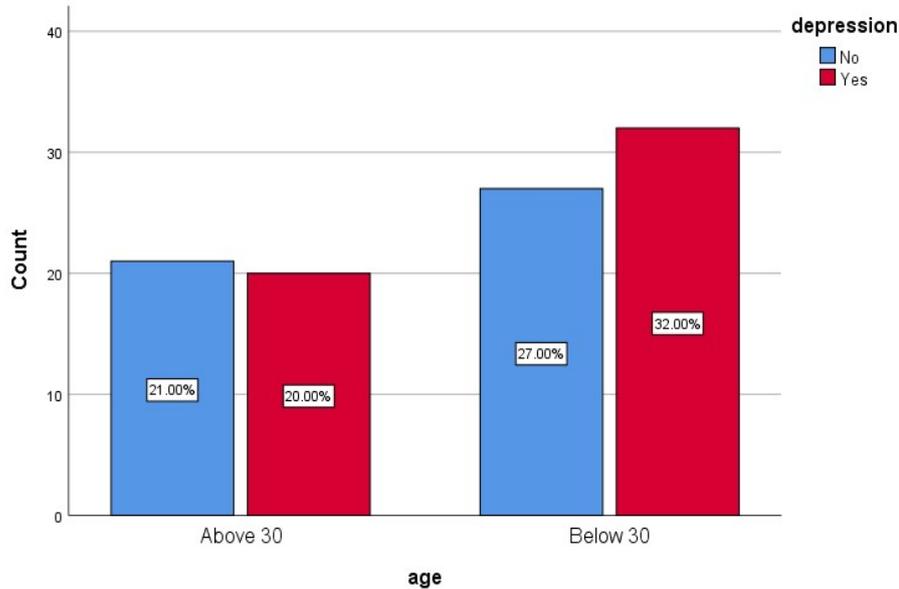


Figure 17. Bar chart representing association between age and undergoing depression and anxiety due to lockdown. X axis represents age and Y axis represents anxiety and depression faced by people. Out of 52% of the public who are depressed and anxious, 32% are below 30 years of age and 20% are above 30. Association between age and depression was done using Chi square test (chi square value = 0.289, P value = 0.591) and was found to be statistically insignificant. Even-though the association is statistically insignificant, people below 30 are more depressed and anxious than people above 30 due to lockdown.

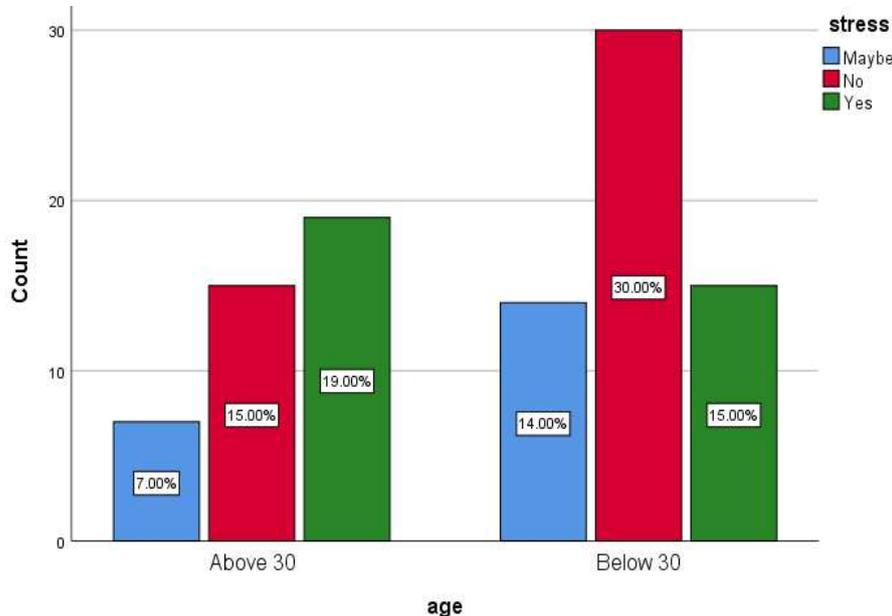


Figure 18. Bar chart representing association between age and suffering any eating or sleeping difficulties due to stress of the pandemic. X axis represents age and Y axis represents sleeping & eating difficulties faced by people. Out of 45% of the public who are depressed and anxious, 30% are below 30 years of age and 15% are above 30. Association between age and difficulties was done using Chi square test(chi square value = 4.717, P value = 0.095) and was found to be statistically insignificant. Even-though the association is statistically insignificant, people below 30 are suffering from more eating and sleeping disorders than people above 30.

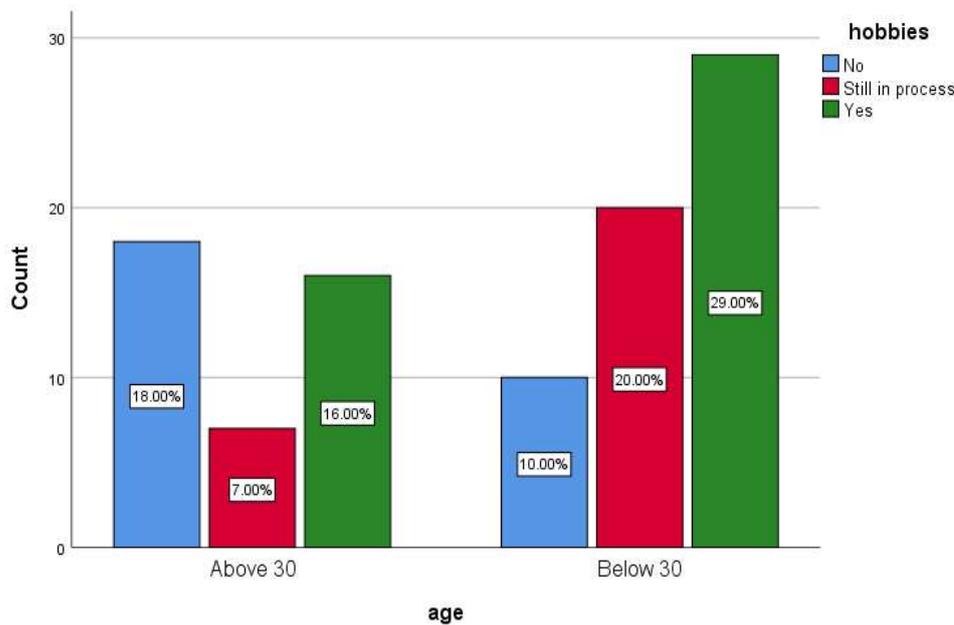


Figure 19. Bar chart representing association between age and acquiring new hobbies during the lockdown. X axis represents age and Y axis represents hobbies acquired by people. Out of 45% of the public who are acquiring hobbies, 29% are below 30 years of age and 16% are above 30. Association between age and hobbies was done using Chi square test (chi square value = 9.364, P value = 0.009) and was found to be statistically significant. Even-though the association is statistically insignificant, people below 30 are acquiring new hobbies more than people above 30.

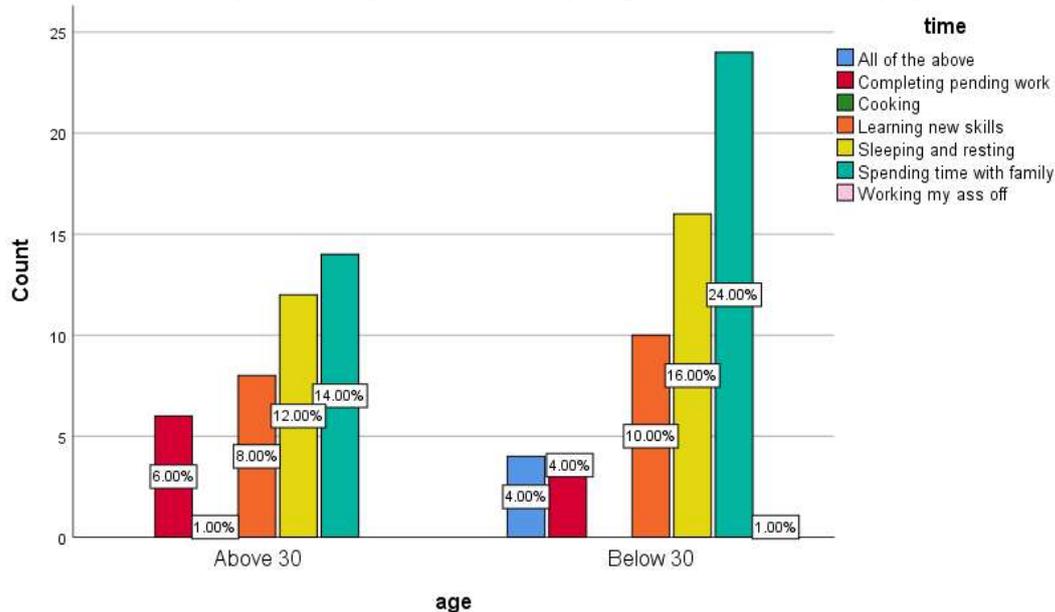


Figure 20. Bar chart representing association between age and ways of spending time during the lockdown. X axis represents age and Y axis represents ways opted by people to spend time. Out of the people, 6% and 4% of people above and below 30 respectively are completing pending work. 8% and 10% of people above and below 30 respectively are learning new skills, 12% and 16% of the people above and below 30 respectively are resting and sleeping and 14% and 24% of the people above and below the age of 30 respectively are spending time with their family. Association between age and methods of spending time was done using Chi square test (chi square value = 6.806, P value = 0.339) and was found to be statistically insignificant. Even-though the association is statistically insignificant, people below 30 spend their time on cooking than above 30.

CONCLUSION

The present studies show that the pandemic and outbreak of coronavirus is affecting the financial, mental and physical health of the public. The survey was necessary and important in order to create awareness about how to stay healthy and mentally fit during the lockdown period. However, in order to have a more conclusive result, a large scale survey should be conducted.

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