

Knowledge And Awareness On Mental Health Of Students During Quarantine Period

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ABSTRACT: *Coronavirus, a deadly virus caused an unimaginable pandemic across the globe and in order to limit its spread the lockdown and quarantine initiative was introduced. The mental health of students generally refers to the complete mental well-being and the absence of any mental disorders. This pandemic caused a major fluctuation in mental attitudes and anxiety levels of students. The main aim of this study was to analyze the attitude of students in relation to the quarantine and the mental health of students during the lockdown period. A self administered questionnaire was prepared and circulated. The results were obtained and statistically analysed using SPSS software with a version of 22 and the statistical test used was descriptive statistics. It was found that the majority of students had no change in relationship between friends and family and were able to counteract boredom and laugh every single day of the quarantine. The study concluded that the quarantine period had an effect on attitude and anger levels of students. Teenagers were physically and psychologically affected by the quarantine due to lack of socialization and however proved to be addicted to social media which had a deteriorating rating impact on the quality of life.*

KEYWORDS: *Attitude, lockdown, Mental health, online survey, quarantine, teenagers.*

1. INTRODUCTION

Mental health refers to cognitive behaviour of an individual and involves complete emotional and behavioural well being. Mental health can also be defined in terms of the disorders associated and it refers to the absence of any mental disorders (Galderisi *et al.*, 2015) The mental health of an individual varies in respect to the environmental and situational conditions. The current period in India has witnessed a lockdown due to the

coronavirus.(Umakanth, Babu and Mohanraj, 2018) The coronavirus is a deadly disease that affects both mammals and birds and spreads through droplets and touch. To inhibit this spread, the concept of social distancing and isolation was brought into light and the Janta curfew was initiated from the 23rd of March, 2020 ('Coronavirus lockdown: What's allowed from April 20 and what isn't', no date) The attitude of a person generally represents the ability of an individual to react to different situations. Understanding the attitude of an individual enhances effective socialisation and thereby enhances work output (Eagly and Chaiken, 1993) Assessing the mental health of an individual has an impact on thoughts and helps in maintaining relationships, increases adaptability and helps in coping with adversity.(Bo *et al.*, 2020)

During quarantine and lock down, children and students require special attention and this is done to ensure that mental depression does not set in. During quarantine, due to restriction from friends and peer groups, students often undergo stress and boredom which has a psychological impact on them (Liu *et al.*, 2020). The reason for the anxiety and depression that occurs is due to the concerned attitude about the uncertain future which causes a feeling of helplessness and grief. 45% of the population have a negative health effect in response to this(*On Coronavirus Lockdown? Look for Meaning, Not Happiness*, no date). Further stresses during quarantine could also arise due to fear of infection, frustration, boredom and inadequate supplies and information. Psychological distress in such times is linked to psychiatric history and this distress could be avoided by restricting the time on social media and encouraging students through online platforms such as work from home(Brooks *et al.*, 2020). In rare cases, high burden of mental health among students can lead to mood disorders and sometimes post traumatic (COVID-19) stress which could be due to low self-esteem and lack of self control(Hossain, Sultana and Purohit, 2020). Additional stresses could also occur due to extrovert nature and the socially distant relationship during the quarantine. During the initial phase of lockdown, the Psychological impact ranged from moderate-to-severe but however all previous researches had to have a comparison of mental attitude.(Park and Park, 2020)

Recent advanced research on nanomaterials ((Wu *et al.*, 2019), (Wang *et al.*, 2019)), natural products in health and disease (Ma *et al.*, 2019), (Gan *et al.*, 2019), (Priya, Jainu and Mohan, 2018)), studies on cancer biology (Ling *et al.*, 2010), (Li *et al.*, 2020), (Rengasamy *et al.*, 2018), (Ramya, Priya and Gayathri, 2018), (Rengasamy *et al.*, 2016), (Menon, Priya and Gayathri, 2016), (Surapaneni and Jainu, 2014)) nurtured my passion for research. The idea for this epidemiological survey stemmed from the current interest in our community.The present study was conducted to understand the importance of mental health and mental well-being and to maintain balance between personal and professional life in addition to enhancing the quality of relationships and work output. There arises a need to spread Awareness to reduce the suicide rates of students who suffer from depression and boredom. The present study aims at assessing the mental attitude of students and helps in focusing on professional aspects by spreading awareness on the importance of mental health.

2. MATERIALS AND METHODS

A prospective observational study was conducted among students of different age groups which was economical, easy to create, had a wide reach, gathered large data and had a quick interpretation. The approval for this research was obtained from the Scientific review board of Saveetha Dental college, Chennai.

A self administered questionnaire was prepared pertaining to the topic and was circulated among 100 dental students through a google form link. The results were obtained and analysed. The statistical test used was descriptive statistics and the statistical tool was SPSS version 22.(Shukri *et al.*, 2016)

3. RESULT AND DISCUSSION

The data was collected and analysed and it was found that most family members felt that the relationship with their children had improved. Half the population felt mildly anxious on ending the quarantine and a majority engaged in activities to keep themselves occupied and were moderately dependant on social media too and were able to counteract boredom but saw an increase in anger levels.

Majority of the students belonged to the age group 18-20 years. (Figure.1). 79.21% of the population were aware of the reason behind the current lockdown and its initiative while 20.79% were not aware of this step taken. (Figure.2)

49.5% of the students were very excited at the start of the lockdown, 32.67% were mildly happy and 17.82% were affected by this. (Figure.3). 29.7% of the students were not entitled to an opportunity to do something that they loved during this quarantine while 70.3% had this chance. (Figure.4)

36.63% of the population had a relationship with family members that remained unaffected while 63.37% felt a change in relationship. (Figure.5). 71.29% of students were able to laugh at least 10 times a day despite the physical restraint from friends and 28.71% were unable to. (Figure.6)

17.82% of students voted for the scale ranging from 8-10 for being anxious to end the quarantine, 32.67% for 4-7 and 49.5% for 1-3. (Figure.7). 14.98% had an unaffected relationship with friends, 39.60% became more distant and 40.59% for bringing them closer. (Figure.8)

38.61% of students do not engage in activities every day while 61.39% were engaged in different activities. (Figure.9). 31.68% of the students were neither affected nor unaffected by the concept of 'work from home', 23.76% were not affected and 44.55% were directly affected. (Figure.10)

14.85% were addicted to social media, 44.55% were moderately dependent and 40.59% were mildly dependent on social media. (Figure.11). 33.66% of students were unable to restrict themselves from social networking while 66.34% would not be to. (Figure.12)

33.66% of students who visualise the quarantine as a negative effect on teenagers while 66.34% visualise the quarantine as a positive effect on teenagers. (Figure.13). 37.62% were unable to counteract boredom every single day while 62.36% had the ability to. (Figure.14)

33.66% of the students did not have an impact on their anger levels during the quarantine. (Figure.15). 71.29% had a change of opinion about the quarantine from the start to the end while 28.71% did not change their opinion. (Figure.16)

Association analysis was also done between age and awareness of the quarantine period (Figure.17), attitude of students during the declaration of holidays (Figure.18), relation between quarantine and activities performed (Figure.19), relationship with family members during quarantine (Figure.20), ability to laugh at least 10 times a day (Figure.21), anxiety levels to terminate the quarantine period (Figure.22), change in relationship among friends (Figure.23), ability to engage in some activity everyday (Figure.24), impact of 'work from home' (Figure.25), dependence on social media (Figure.26), ability to survive without social networking (Figure.27), visualising quarantine as a positive sign among teenagers (Figure.28), ability to counteract boredom during the quarantine (Figure.29), effect of anger levels (Figure.30) and change in opinion on quarantine (Figure.31)

Lack of regular communication caused an increase in anxiety levels of teenagers and stress which can be counteracted by regular exercise and keeping the mind and body healthy. Most of the people quarantined / home isolated, had a fear of being attacked by the virus and an anxiety of being socially wiped out. Psychiatrist believed that there had been a fast increase in the number of cases who suffered from depression and sudden anxiety levels.

The limitations of the study included increase in sample size and increase in number of criteria while future scope included better mental attitude, more positive visualisation of life and a healthier society.

4. CONCLUSION

Teenagers were physically and psychologically affected by the quarantine due to lack of socialization and however proved to be addicted to social media which had a deteriorating rating impact on the quality of life. More awareness may be provided for the younger generation to make themselves physically active to have a balanced diet in this quarantine period.

Conflict Of Interest

The author declares that there was no conflict of interest in the present study.

Author Contribution

Kaviyaselvi Gurumurthy: Literature search, data collection, analysis

V. Vishnu Priya: Data verification, manuscript drafting K.R.Don: Data verification, manuscript drafting

R. Gayathri: Data analysis, manuscript drafting

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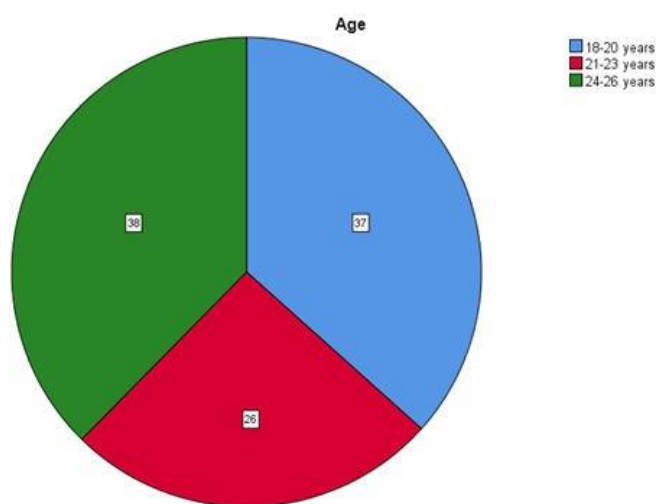


Figure.1- Pie chart showing percentage distribution of responses on age group of participants. About 37%- 18-20 years (blue), 2%- 21-23 years (red) and 38%- 24-26 years (green) had participated in the survey.

Majority of participants belonged to the age group of 24-26 years.

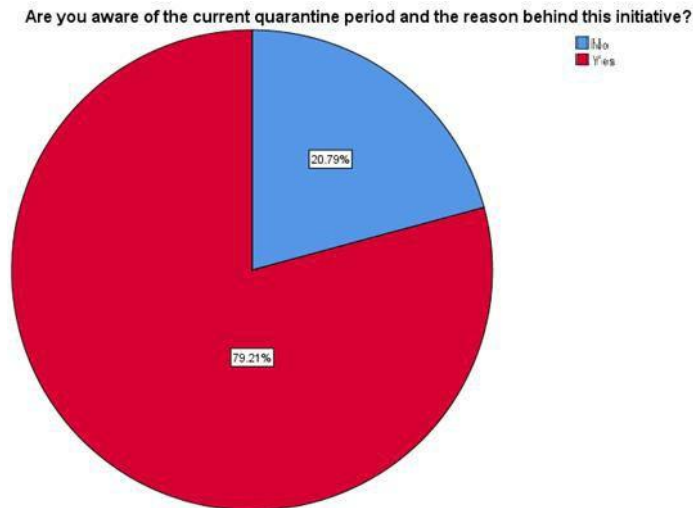


Figure.2- Pie chart showing percentage distribution of responses on awareness of the quarantine period.

About 79.21% were aware (red) and 20.79%- unaware (blue). Higher number of participants had responded to being aware of the quarantine period (79.21%).

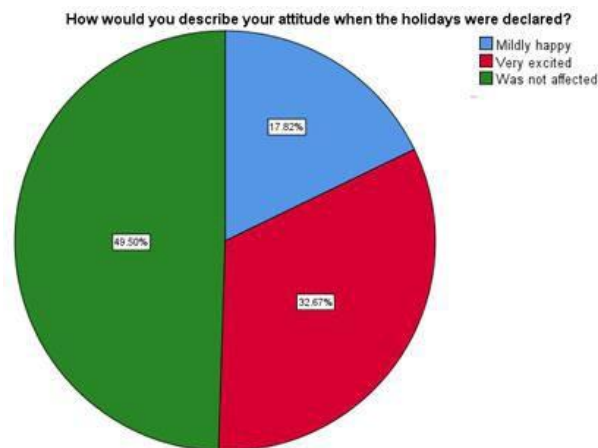


Figure.3- Pie chart showing percentage distribution of responses on attitude of students during the declaration of holidays. About 17.82% perceived their attitude as unaffected (blue), 32.67%- mildly happy (red) and 49.50%- very excited (green). Higher number of participants had responded very excited (49.50%).

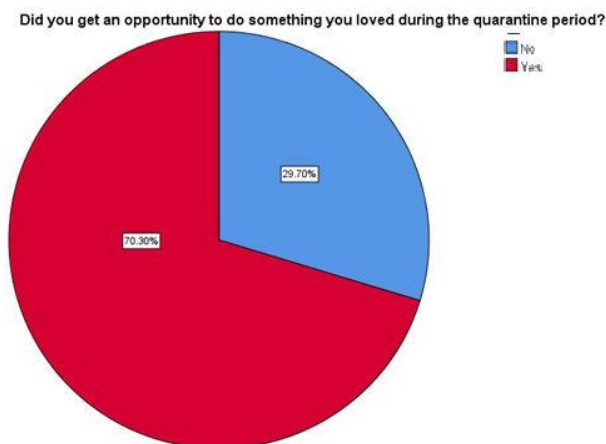


Figure.4- Pie chart showing percentage distribution of responses on relation between quarantine and activities performed. About 29.70% perceived they did not get an opportunity to do something they loved (blue) and 70.30%- yes (red). Higher number of participants had responded yes (70.30%).

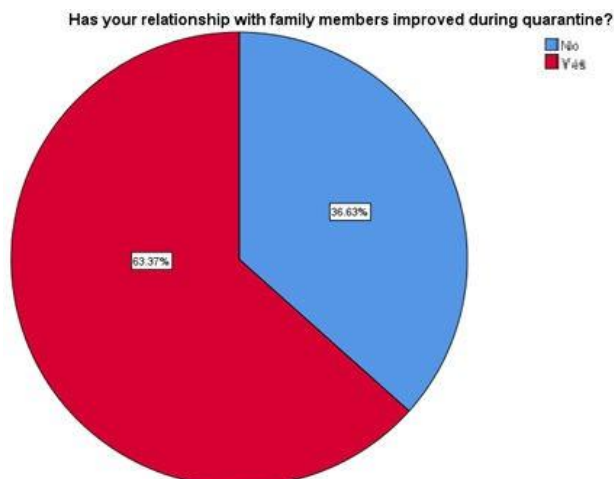


Figure.5- Pie chart showing percentage distribution of responses on relationship with family members during quarantine. About 36.63% perceived their relationship remained unaffected (blue) and 63.37%- their relationship improved (red). Higher number of participants had responded yes (63.37%).

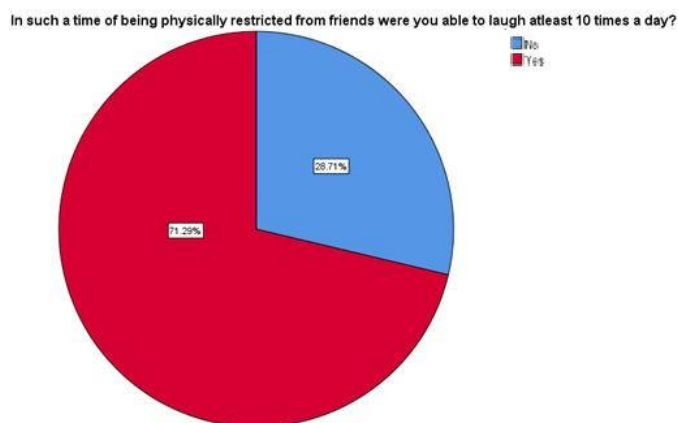


Figure.6- Pie chart showing percentage distribution of responses on ability to laugh at least 10 times a day. About 28.71% perceived they were unable to laugh at least 10 times a day (blue) and 71.29%- they were able to laugh at least 10 times a day (red). Higher number of participants had responded yes (71.29%).

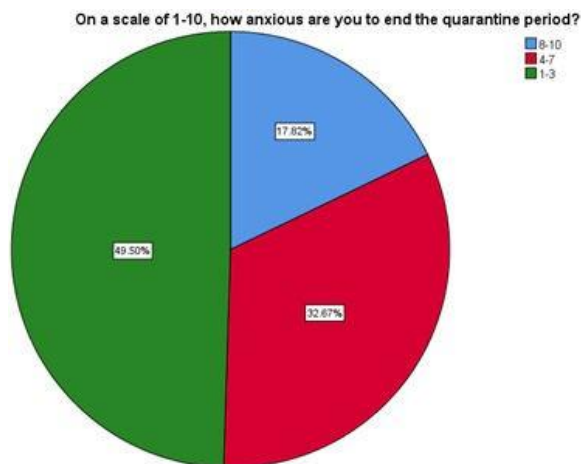


Figure.7- Pie chart showing percentage distribution of responses on anxiety levels to terminate the quarantine period. About 17.82% perceived they were severely anxious to terminate the quarantine (blue), 32.67%- they were moderately anxious (red) and 49.50%- they were mildly anxious (green). Higher number of participants had responded 1-3 (49.50%).

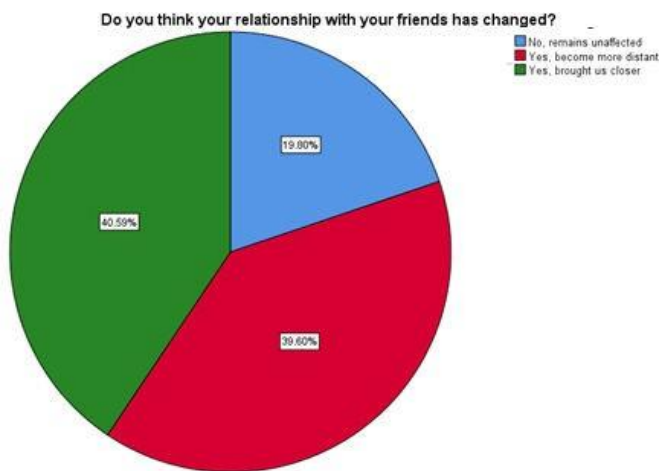


Figure.8- Pie chart showing percentage distribution of responses on change in relationship among friends. About 19.80% perceived their relationship to be unaffected (blue), 39.60%- became more distant (red) and

40.59%- brought them closer (green). Higher number of participants had responded that their relationship had brought them closer (40.59%).

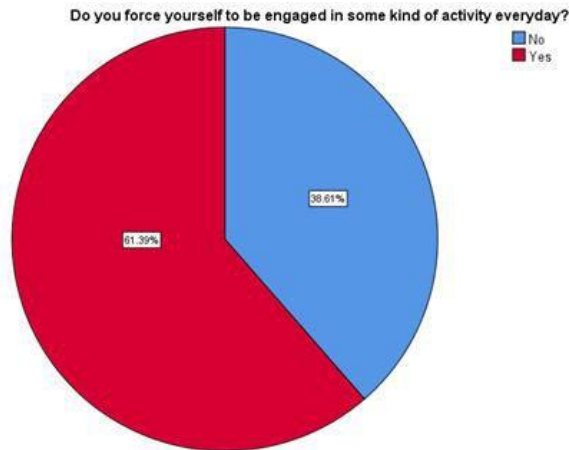


Figure.9- Pie chart showing percentage distribution of responses on ability to engage in some activity everyday. About 38.61% perceived they were unable to engage in some activity everyday (blue), 61.39%- were able to engage in some activity everyday (red). Higher number of participants had responded that they were able to engage in some activity everyday (61.39%).

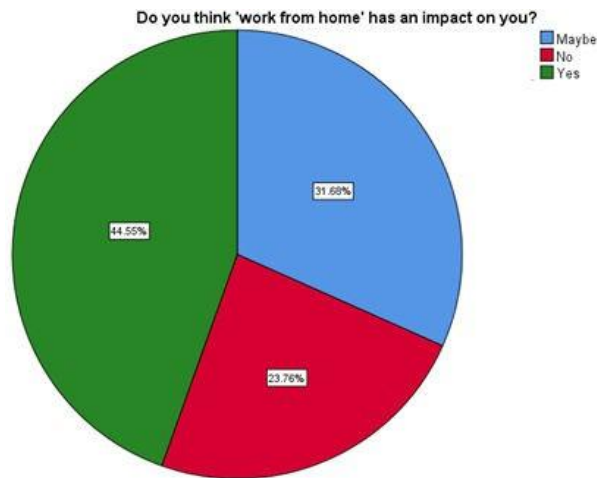


Figure.10- Pie chart showing percentage distribution of responses on impact of 'work from home'. About 31.68% perceived that they might be impacted due to work from home (blue), 23.76%- they are not impacted due to work from home (red) and 44.55%- they are impacted (green). Higher number of participants had responded that they were impacted by work from home (44.55%).

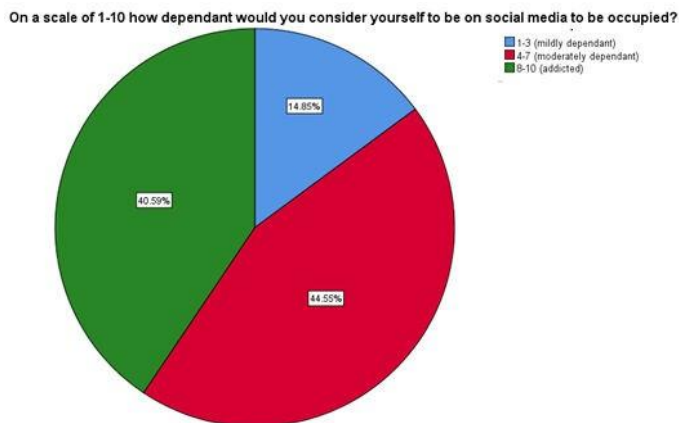


Figure.11- Pie chart showing percentage distribution of responses on dependence on social media. About 14.85% perceived that they were addicted to social media (blue), 44.55%- moderately dependant (red) and 40.59%- mildly dependant (green). Higher number of participants had responded that they were moderately dependent on social media (44.55%).

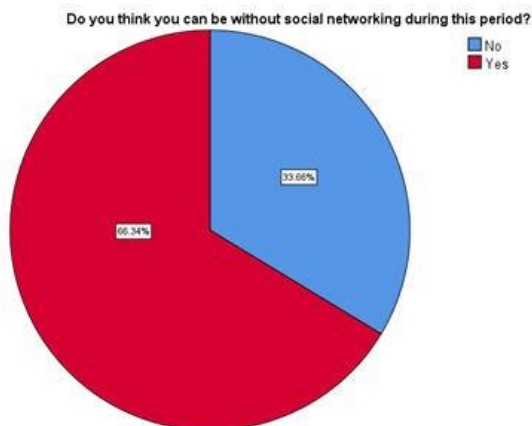


Figure.12- Pie chart showing percentage distribution of responses on ability to survive without social networking. About 33.66% perceived that they would be able to survive without social networking (blue), 66.34%- able to survive without social networking (red). Higher number of participants had responded that they were able to survive without social networking (66.34%).

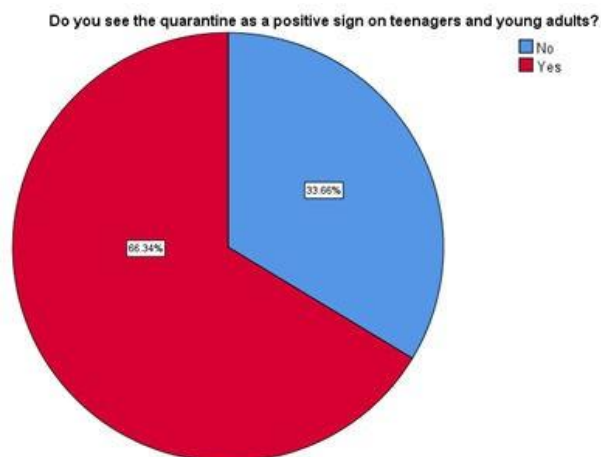


Figure.13- Pie chart showing percentage distribution of responses on visualising quarantine as a positive sign among teenagers. About 33.66% perceived quarantine as a negative sign (blue), 66.34%- perceived quarantine as a positive sign (red). Higher number of participants had responded that the quarantine was a positive sign (66.34%).

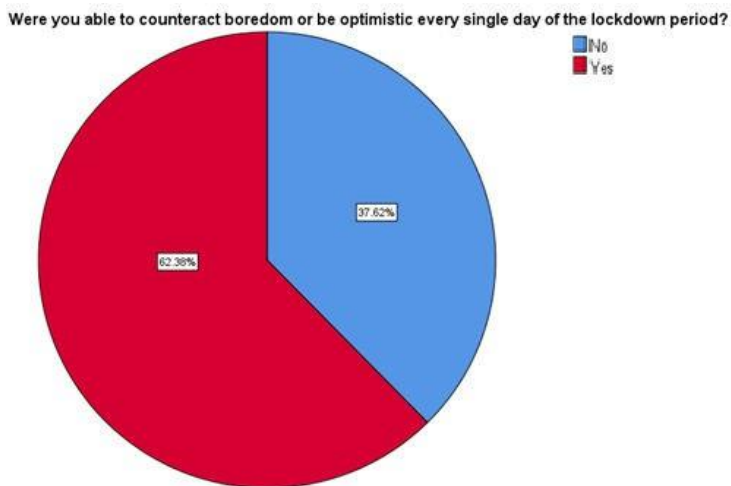


Figure.14- Pie chart showing percentage distribution of responses on ability to counteract boredom during the quarantine. About 37.62% perceived they were unable to counteract boredom (blue), 62.38%- were able to counteract boredom (red). Higher number of participants had responded that they were able to counteract boredom (62.38%).

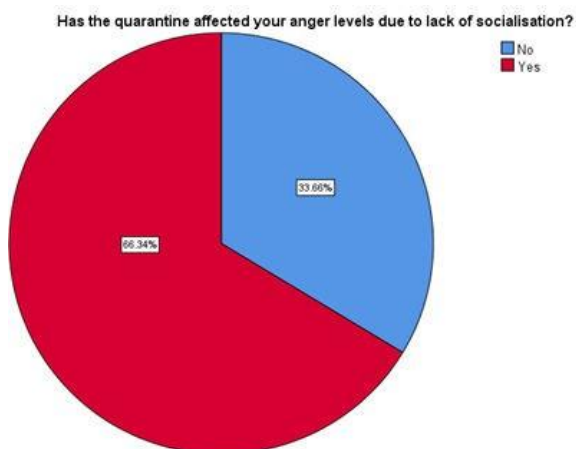


Figure.15- Pie chart showing percentage distribution of responses on effect of anger levels. About 33.66% perceived that their anger levels remained unaffected (blue), 66.34%- anger levels varied (red). Higher number of participants had responded that their anger levels had been affected (66.34%).

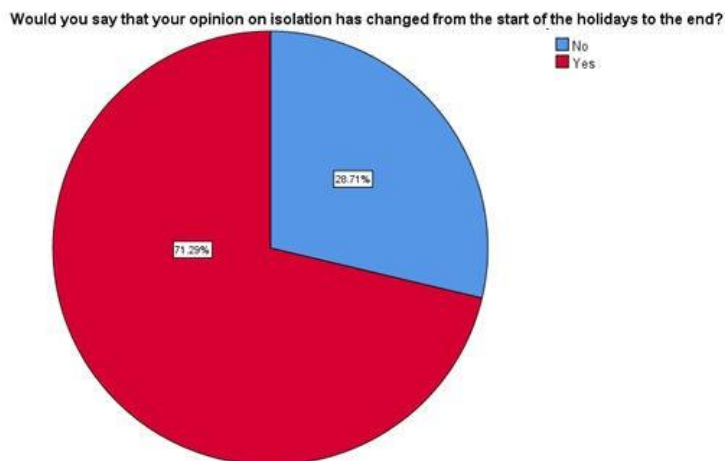


Figure.16- Pie chart showing percentage distribution of responses on change in opinion on quarantine. About 28.71% perceived that their opinion on quarantine did not change (blue), 71.29%- change in opinion (red). Higher number of participants had responded that they had a change in opinion on quarantine (71.29%).

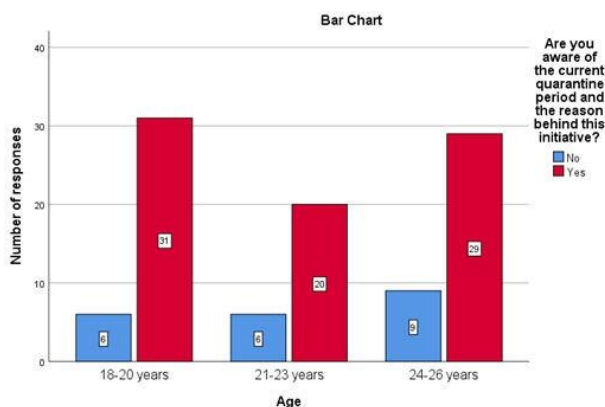


Figure. 17- Bar graph showing the association between age and responses of awareness on quarantine and lockdown. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants who were unaware of the quarantine and red colour represents the number of participants who were aware. Students belonging to the age group 18-20 years had more knowledge on the awareness of quarantine as compared to the other age groups. However, the association between age and awareness about quarantine is statistically not significant. Chi square analysis shows $p=0.689$ ($p>0.05$ which is statistically not significant).

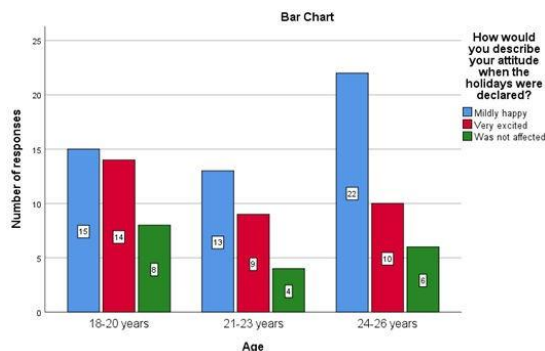


Figure.18- Bar graph showing the association between age and responses to attitude towards holidays. X- axis represents age of participants and y-axis represents number of participants

responded. Blue colour represents the number of participants who were mildly happy, red colour represents the number of participants who were very excited and green colour represents the number of participants who were unaffected. Students belonging to the age group 18-20 years had better understanding of their attitude towards the holidays as compared to the other age groups. However, the association between age and attitude towards holidays is statistically not significant. Chi square analysis shows $p=0.659$ ($p>0.05$ which is statistically not significant).

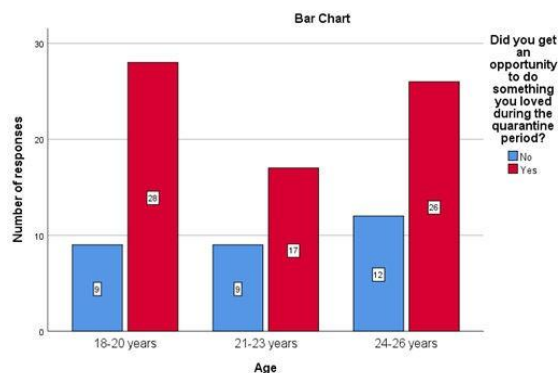
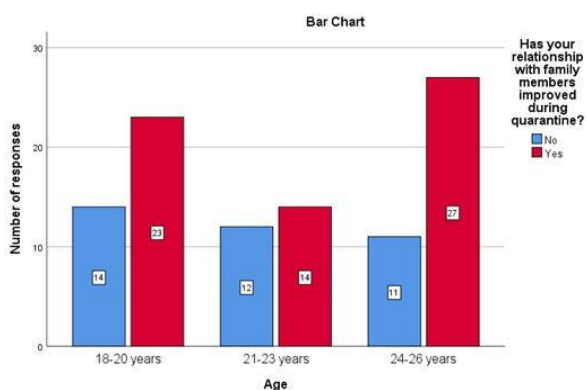


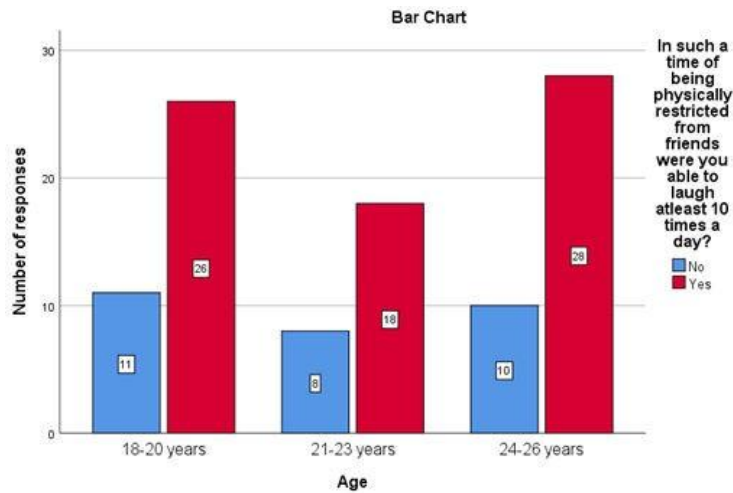
Figure.19- Bar graph showing the association between age and responses of relation between quarantine and activities performed. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants who did not perform activities they loved and red colour represents the number of participants who performed activities they loved. Students belonging to the age group 18-20 years had better understanding of the activities they performed during the quarantine as compared to the other age groups. However, the association between age and relation between quarantine and activities performed is statistically not significant. Chi square



analysis shows $p=0.645$ ($p>0.05$ which is statistically not significant).

Figure.20- Bar graph showing the association between age and responses to relationship with family members. X-axis represents age of participants and y-axis represents number of participants responded.

Blue colour represents the number of participants whose relationship with family members remained unaffected and red colour represents the number of participants whose relationship with family members changed. Students belonging to the age group 18-20 years had better understanding of the change in their relationship with family members during the quarantine as compared to the other age groups. However, the association between age and relationship with family members is statistically not significant. Chi square analysis shows $p=0.367$



($p>0.05$ which is statistically not significant).

Figure.21- Bar graph showing the association between age and responses to their laughing tendency. X- axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants unable to laugh at least 10 times a day and red colour represents the number of participants who were able to. Students belonging to the age group 24-26 years had better understanding of their laughing tendency during the quarantine as compared to the other age groups.

However, the association between age and their laughing tendency is statistically not significant. Chi square analysis shows $p=0.367$ ($p>0.05$ which is statistically not significant).

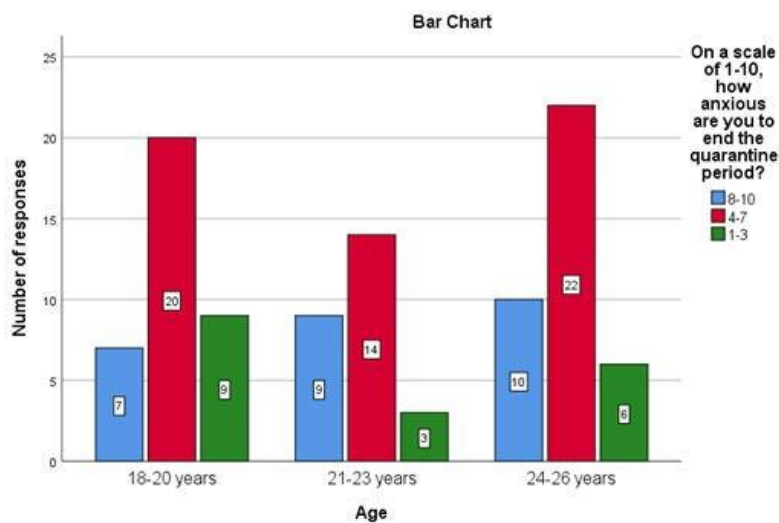


Figure.22- Bar graph showing the association between age and responses to their anxiety for ending quarantine. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants who were severely anxious, red colour represents the number of participants who were moderately anxious and green colour represents the number of participants who were mildly anxious. Students belonging to the age group 24-26 years had better understanding of their anxiety levels during the quarantine as compared to the other age groups. However, the association between age and anxiety for ending quarantine is statistically not significant. Chi square analysis shows $p=0.546$ ($p>0.05$ which is statistically not significant).

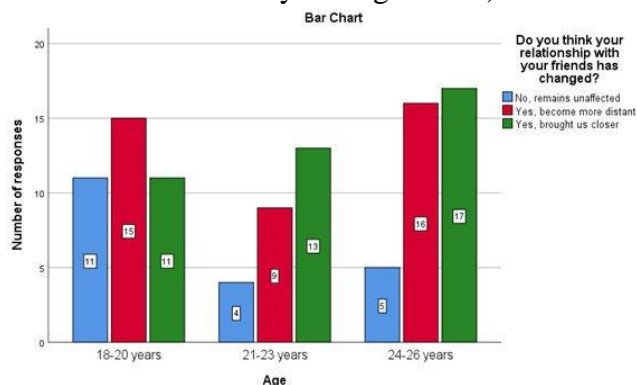


Figure.23- Bar graph showing the association between age and responses to their relationship with friends. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants whose relationship remains unaffected, red colour represents the number of participants whose relationship became more distant and green colour represents the number of participants whose relationship brought them closer. Students belonging to the age group 24-26 years had better understanding of the change in relationship with friends as compared to the other age groups. However, the association between age and relationship with friends is statistically not significant. Chi square analysis shows $p=0.289$ ($p>0.05$ which is statistically not significant).

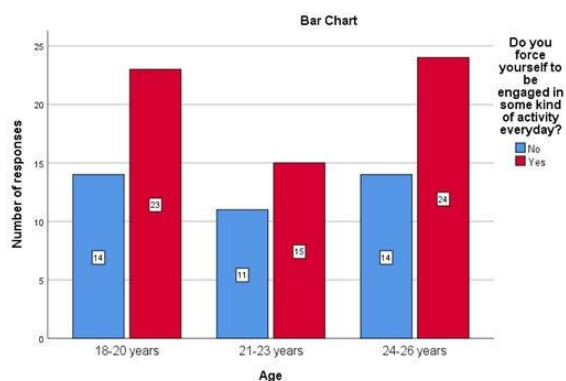


Figure.24- Bar graph showing the association between age and responses to engagement in activities. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants unable to engage in activities and red colour represents the number of participants who were able to. Students belonging to the age group 18-20 years had better understanding of their ability to engage in activities during the quarantine as compared to the other age groups. However, the association between age and engagement in activities is statistically not significant.

Chi square analysis shows $p=0.901$ ($p>0.05$ which is statistically not significant).

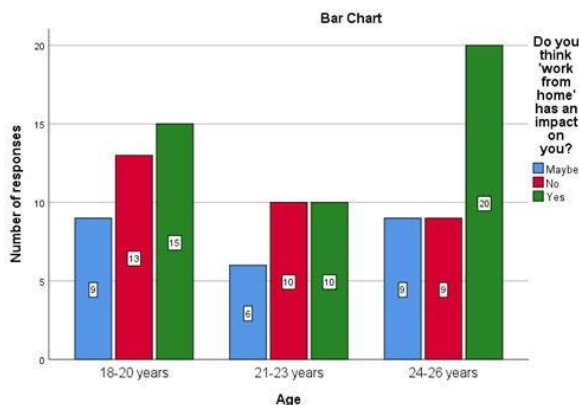


Figure.25- Bar graph showing the association between age and responses to impact of work from home. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants who might be impacted, red colour represents the number of participants who were not impacted and green colour represents the number of participants who were impacted. Students belonging to the age group 21-23 years had better understanding of the impact of work from home during the quarantine as compared to the other age groups. However, the association between age and impact of work from home is statistically not significant. Chi square analysis shows $p=0.699$ ($p>0.05$ which is statistically not significant).

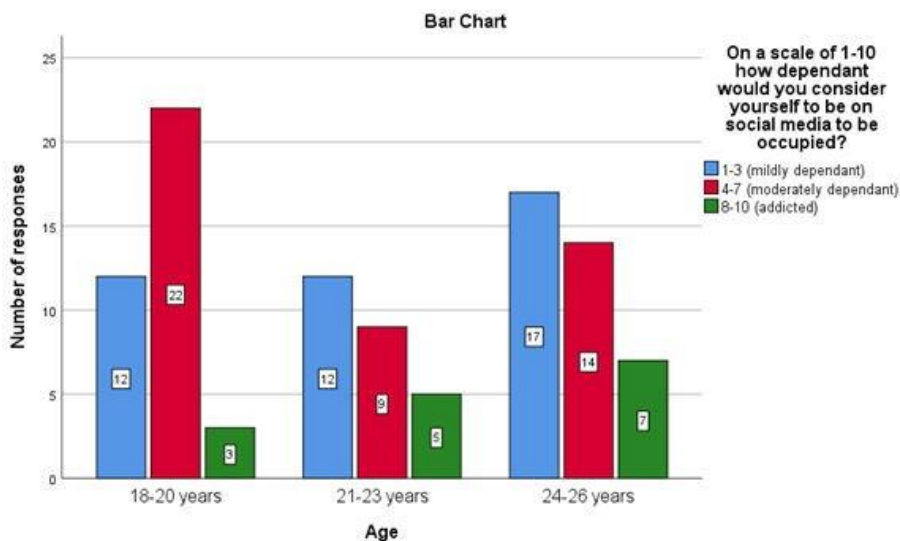


Figure.26- Bar graph showing the association between age and responses to dependence on social media. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants who were mildly dependent, red colour represents the number of participants who were moderately dependent and green colour represents the number of participants who were addicted. Students belonging to the age group 24-26 years had better understanding of their dependence on social media during the quarantine as compared to the other age groups. However, the association between age and dependence on social media is statistically not significant. Chi

square analysis shows $p=0.224$ ($p>0.05$ which is statistically not significant).

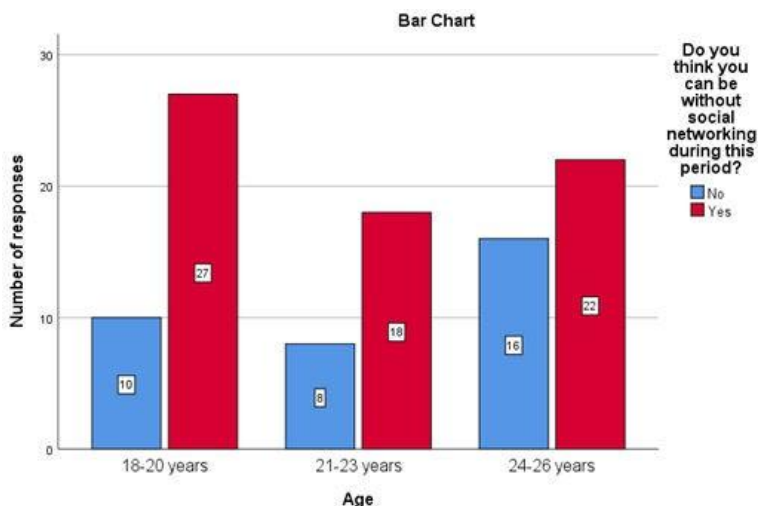


Figure.27- Bar graph showing the association between age and responses on ability to survive without social networking. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants unable to and red colour represents the number of participants who were able to. Students belonging to the age group 24-26 years had better understanding of their ability to survive without social networking as compared to the other age groups.

However, the association between age and ability to survive without social networking is statistically not significant. Chi square analysis shows $p=0.361$ ($p>0.05$ which is statistically not significant).

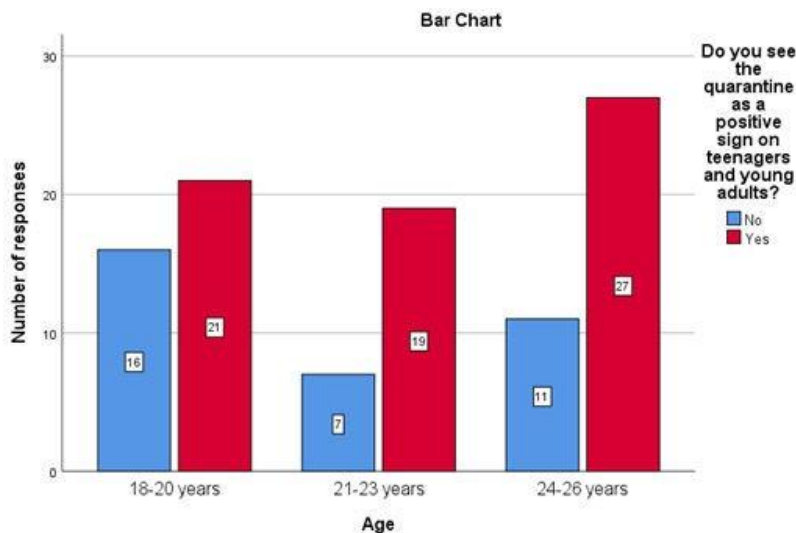


Figure.28- Bar graph showing the association between age and responses to visualising quarantine as a positive effect. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants who visualised quarantine as a negative sign and red colour represents the number of participants who visualised quarantine as a positive sign. Students belonging to the age group 18-20 years had better understanding of their ability to visualize quarantine as a positive effect as compared to the other age groups. However, the association between age and visualising quarantine as a positive effect is statistically not significant. Chi square analysis shows

$p=0.297$ ($p>0.05$ which is statistically not significant).

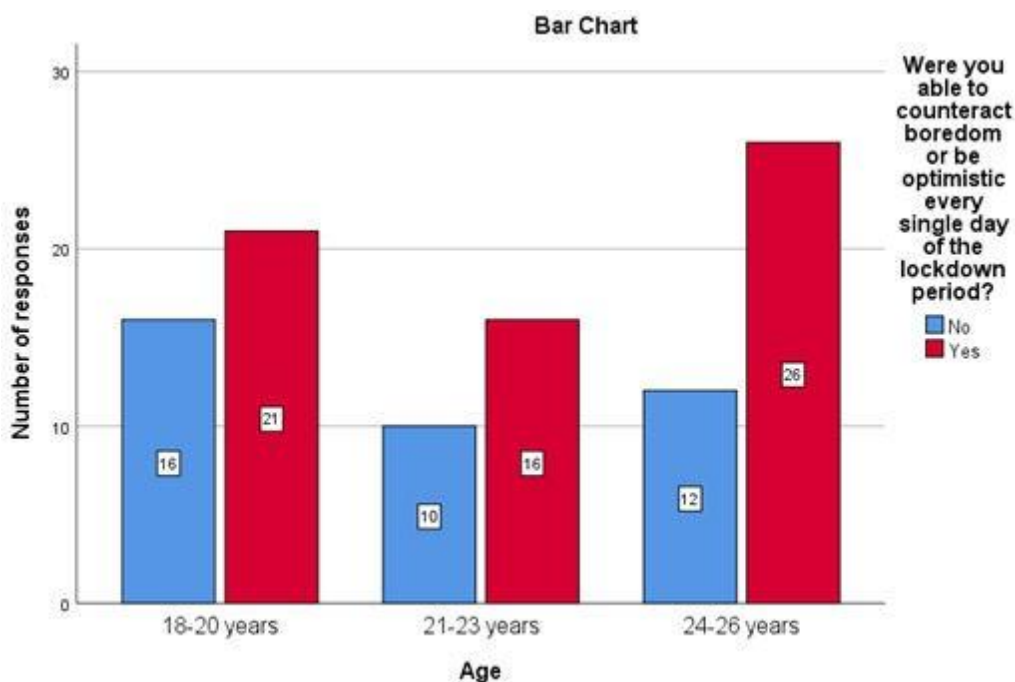


Figure.29- Bar graph showing the association between age and responses on ability to counteract boredom. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants who were unable to counteract boredom and red colour represents the number of participants who were able to. Students belonging to the age group 18-20 years had better understanding of their ability to counteract boredom as compared to the other age groups. However, the association between age and ability to counteract boredom is statistically not significant. Chi square analysis shows $p=0.578$ ($p>0.05$ which is statistically not significant).

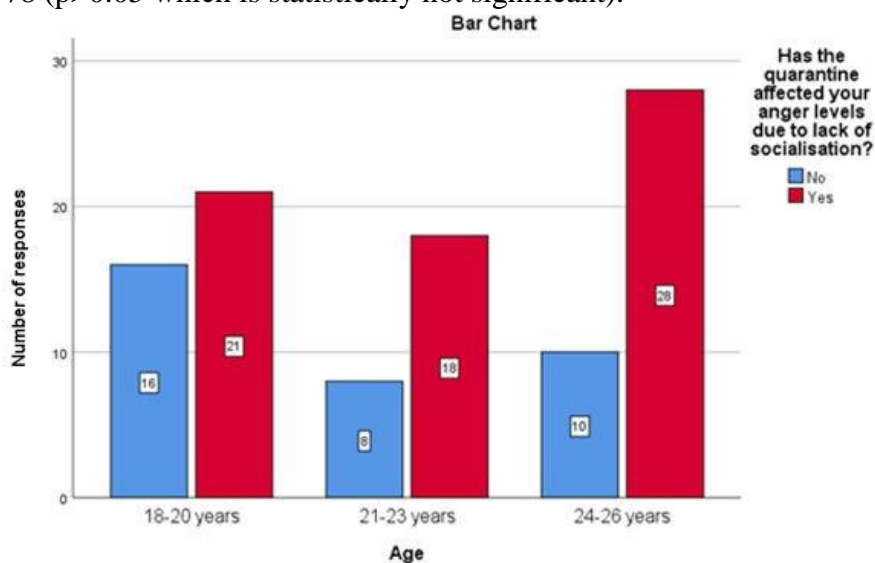
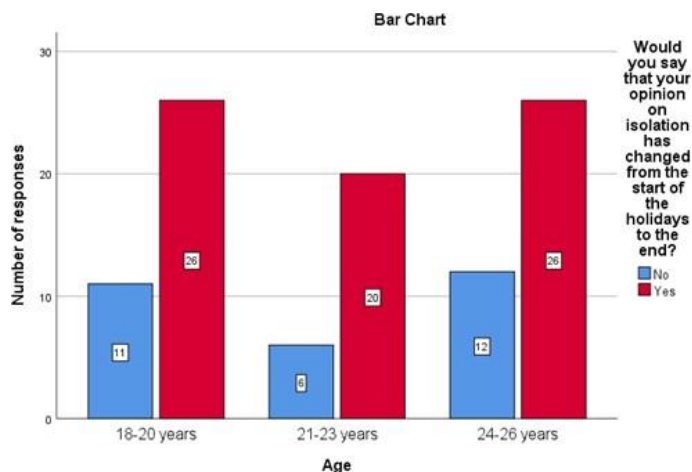


Figure.30- Bar graph showing the association between age and responses to anger levels during quarantine. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants whose anger levels were unaffected and red colour represents the number of participants whose anger levels were affected. Students belonging to the age group 18-20 years had better understanding of their anger levels during the quarantine as compared to the other age groups. However, the association between age and anger levels during quarantine is statistically not significant. Chi



square analysis shows $p=0.281$ ($p>0.05$ which is statistically not significant).

Figure.31- Bar graph showing the association between age and responses to to change in opinion on quarantine. X-axis represents age of participants and y-axis represents number of participants responded. Blue colour represents the number of participants whose opinion on the quarantine remained the same and red colour represents the number of participants whose opinion on the quarantine changed. Students belonging to the age group 24-26 years had better understanding of their opinion on quarantine as compared to the other age groups. However, the association between age and opinion on quarantine. Chi square analysis shows $p=0.750$ ($p>0.05$ which is statistically not significant).